

panagenda GreenLight

Users's Guide

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User Manual version 1.1

GreenLight Release 2.4.0

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Introduction

Today, most companies rely on computer and network infrastructure, used for internet, online collaboration, email, telephone services and many more. Business success is tightly bound to a complex set of servers and network equipment and the seamless flow of data between employees, offices and customers.

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Why System Monitoring

System monitoring software helps to optimize your IT infrastructure performance and availability. System monitoring software helps you to manage and monitor network traffic, databases and servers in distributed and host environments.




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Why panagenda GreenLight

panagenda GreenLight is an enterprise-class, easy-to-use software appliance that monitors the performance and availability of your entire IT infrastructure. Through a rich client workspace you can proactively manage the health and availability of your IT infrastructure. panagenda GreenLight detects bottlenecks and potential problems in essential system resources and helps you to recover from critical situations to ensure your business critical applications are up and running.

Designed as a VMware virtualized appliance, it comes with near zero configuration requirements.

panagenda GreenLight has everything you need to make your everyday monitoring and reporting life easier:

- 
- A blue chevron arrow pointing to the right, located to the left of the bulleted list.
- Easy setup with near zero maintenance effort requirements
 - Real time monitoring workspace with various display options
 - Enterprise scalable data collection of measured data for forensic analysis of collected information
 - Built-in reporting environment with export to common file formats
 - Flexible event notification system with connections to many different communication systems

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Panagenda - expect the unexpected!

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Client Prerequisites

This chapter helps you to configure your web browser to successfully connect to the panagenda GreenLight rich client dashboard. Some additional software installation may be required on your client to run panagenda GreenLight. Please ask your local support helpdesk, if you need further information on how to install software on your client.

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Web browser and Adobe Flash Player

The panagenda GreenLight client is based on Adobe Flash technology. In order to access the rich client workspace, a web browser with installed Adobe Flash Player Plugin is required. Currently, Adobe Flash is supported on major operating systems like Microsoft Windows, Apple OSX and Linux. Detailed information about web browser and operating system support can be found here on the Adobe Flash Player Product Site. Adobe Flash Player Version 10 or newer is required to run the panagenda GreenLight rich client workspace. For the best panagenda GreenLight experience we recommend to always update to the latest version of Adobe Flash Player.

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Browser Security Settings

No special web browser security settings are required to run the panagenda GreenLight rich client workspace. To store login information, permission to save flash cookies is required.

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Connecting to the rich client workspace

To connect to the panagenda GreenLight rich client workspace, you have to enter the panagenda GreenLight host IP address into your web browsers address bar. If you do not know your panagenda GreenLight IP address, ask your local panagenda GreenLight administrator for help.

After accessing the panagenda GreenLight rich client workspace (<http://<ip-address-of-panagenda-greenlight-appliance>>) with your web browser, you will be redirected to a secured connection (<https://<ip-address-of-panagenda-greenlight-appliance>/vimes/vimes.html>). When asked to access a security certificate, please accept it. panagenda GreenLight uses HTTPS for secure communication between its appliance and its rich client workspace.

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Login

panagenda GreenLight uses an internal account management to support different user roles and access levels for different monitoring tasks. Ask your local support helpdesk for your panagenda GreenLight username and password.



Screenshot 1: Login Dialog

Please keep in mind, that panagenda GreenLight access control and account management implements the following security restrictions:

- One single user account cannot be logged on to a panagenda GreenLight appliance more than once at a given time.
- Only one management account can be logged on to a panagenda GreenLight appliance at a given time.

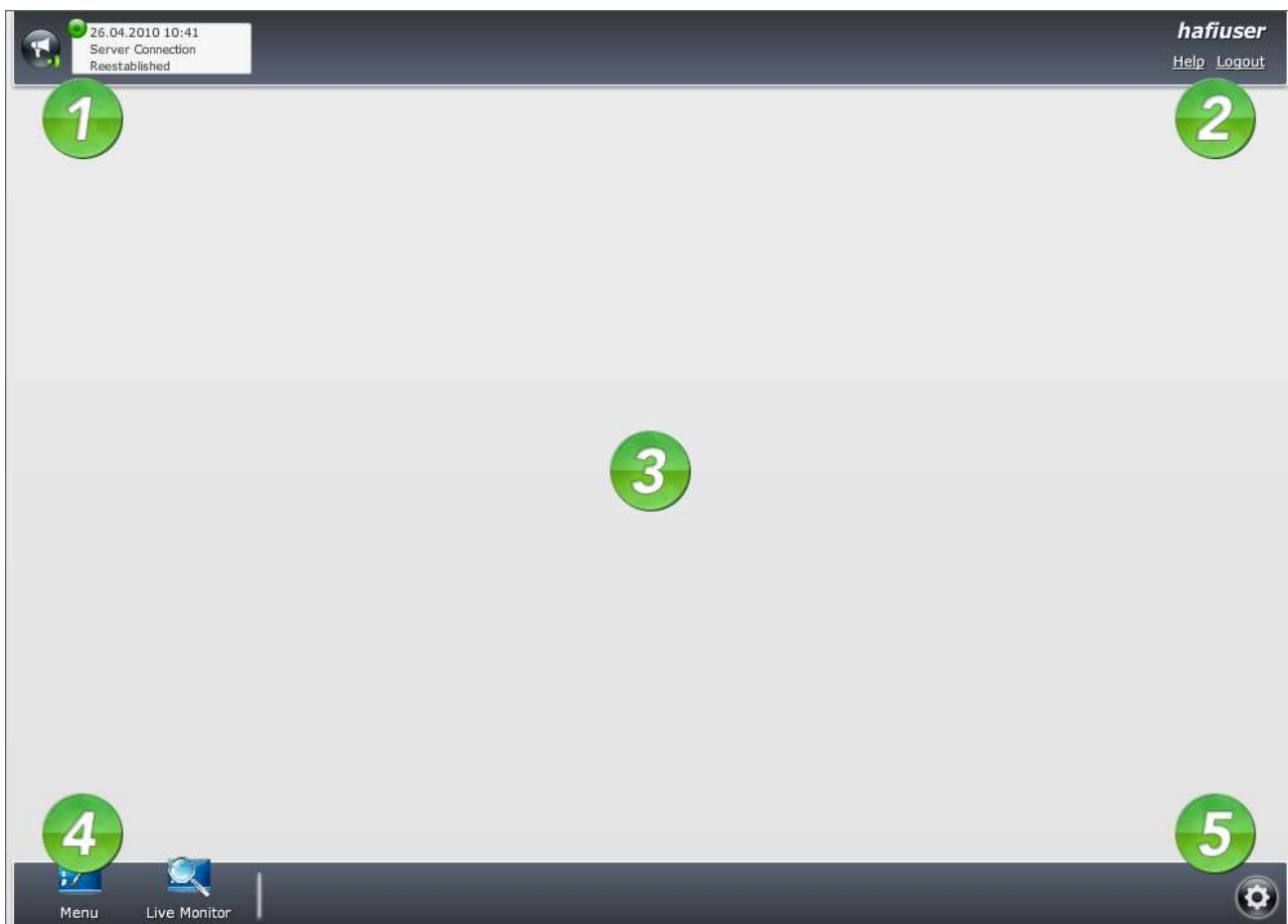
Every time you log into the panagenda GreenLight workspace, you can choose from a list of languages used within the rich client workspace. If your preferred language is not available, contact your local panagenda GreenLight administrator for available language options.

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Rich Client Workspace

panagenda GreenLight uses a rich client user interface which utilizes the principles of multi document interfaces to display different kind of data in an easy and intuitive way.

panagenda GreenLight's workspace main areas are:



Screenshot 2: Rich Client Workspace

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1 Event Notification Area

The event notification area shows messages from the panagenda GreenLight appliance like sensor messages and alerts.

2 User Account Information Area

The user account information area shows your current account name, access to panagenda GreenLight's internal help system and the option to log out from panagenda GreenLight.

3 Main Window Area

The main windows area is the display area for all panagenda GreenLight information.

4 Task Bar Area

The task bar area gives access to the panagenda GreenLight rich client workspace main menu and open tasks. A click on a task bar icon opens the associated window in the main window area.

5 Long Running Process Information Area

The long running process information area shows information about long running tasks and processes. You can click the cogwheel icon to switch information display on or off any time.

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Monitoring

An Introduction to network monitoring and management with panagenda GreenLight

This chapter will give you all the information you need to monitor and manage your IT infrastructure with panagenda GreenLight. Based on simple examples you will learn to read, interpret and act on gathered data by panagenda GreenLight. Please keep in mind that configurations and resource planning differs from infrastructure to infrastructure. For this reason not every gap analysis can be drilled down as deep as possible.



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Monitoring Basics

Basically, there are two ways to monitor an IT infrastructure. One way is to install agent software on any network device you like to monitor, the other is agentless monitoring without having to install anything on the monitored devices. Both methods have its advantages and disadvantages.

panagenda GreenLight is based on agentless monitoring, so no software installation on any of the monitored network devices should be necessary. There are some exceptions here. In some cases it is required to activate some specific protocols or software, panagenda GreenLight needs for communication between itself and a monitored hardware or software. Also, panagenda GreenLight's internal plugin system allows software developers to create its own sensor add on, that can use agents to acquire data from a monitoring target.

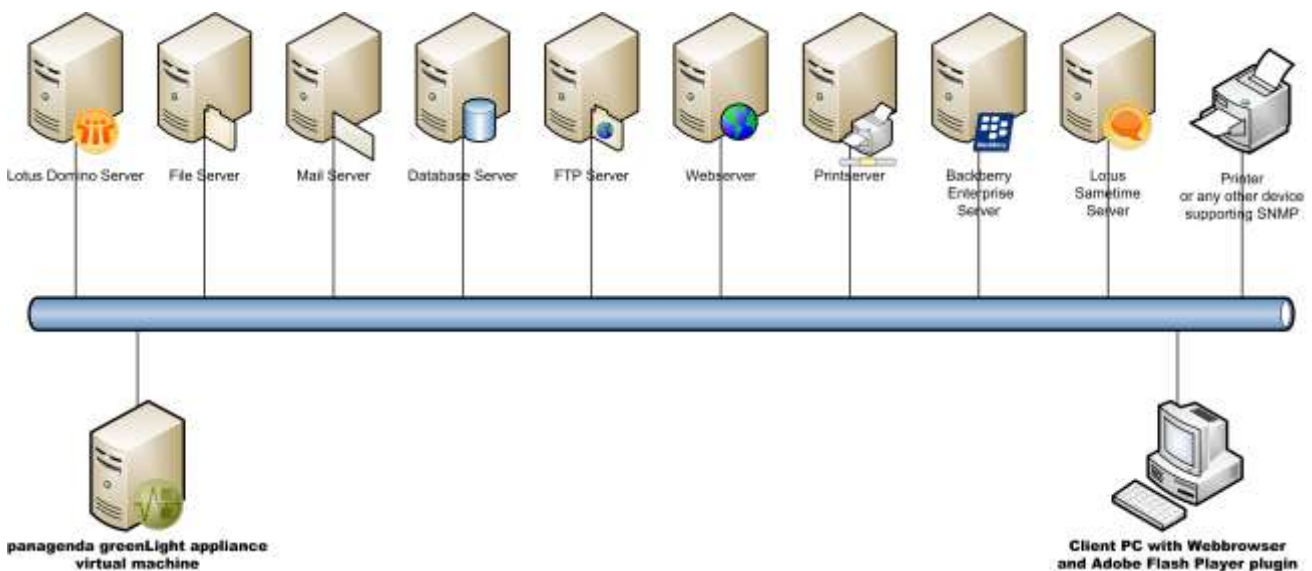


Figure 1: Network Monitoring with panagenda GreenLight

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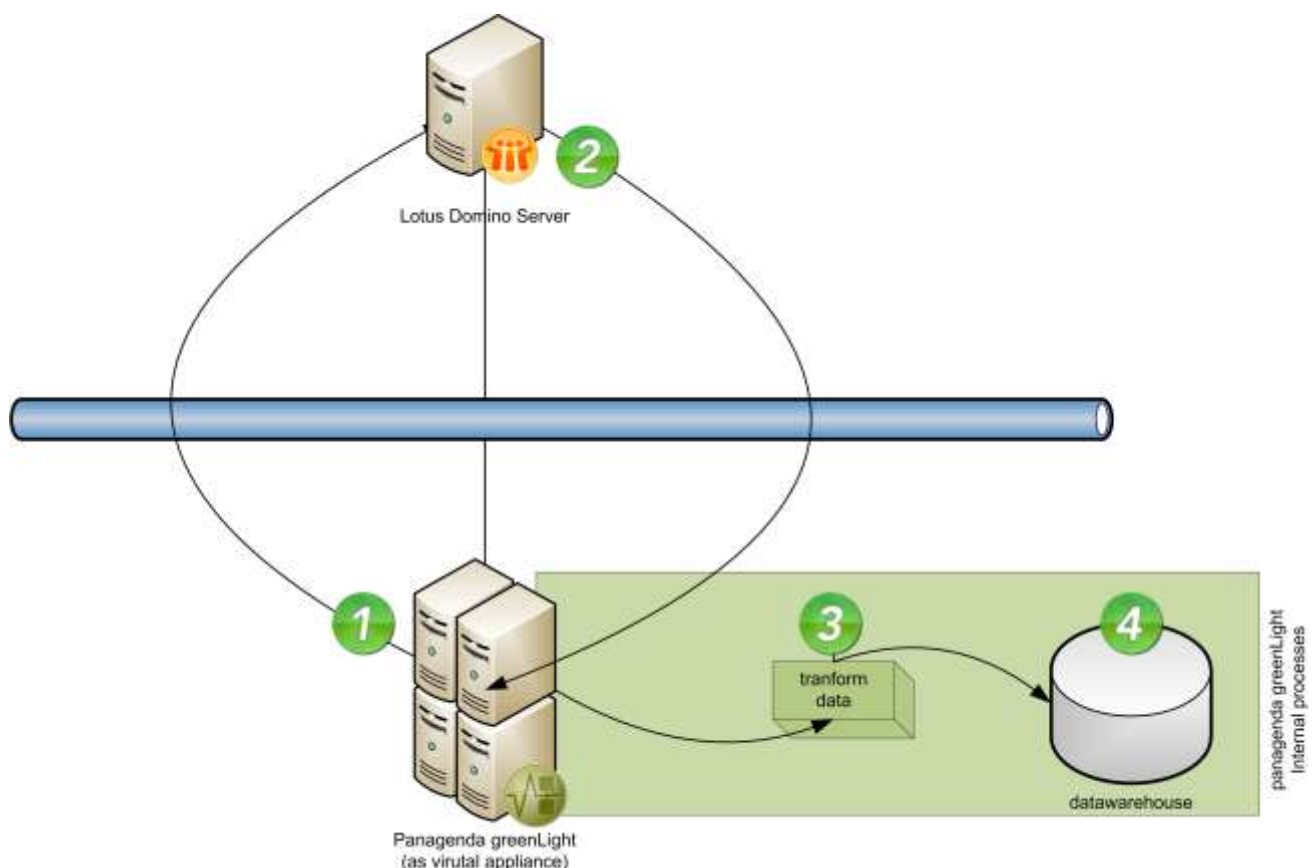
panagenda GreenLight's virtual appliance is monitoring your network devices and storing the collected data based on its configuration and monitoring rules, thereby providing data for real time and forensic evaluation of all your monitored IT infrastructure.

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How does panagenda GreenLight collect its data

panagenda GreenLight uses various methods to request system data from different monitoring targets. Every data is collected by sensors. Sensors are software modules running on the panagenda GreenLight virtual appliance that request information from an given monitoring target at given scheduled rate. (For more information about sensors and its configuration see chapter "Sensors")

A typical sensor request has 4 steps:



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- 1 Request data from target system
- 2 Receive data from target system
- 3 Transform data for better readability and optimize it for storage
- 4 Store transformed data into panagenda GreenLight's internal data warehouse

Step 3 is often used on complex sensor result set, but not mandatory

Step 4 is optional and can be configured while sensor setup. Please ask your local panagenda GreenLight administrator for information about your sensor configuration. More information about sensor results can be found in chapter "Sensors"

Using multiple sensors on multiple targets, panagenda GreenLight can create a full real time overview of your IT infrastructure with the ability for forensic data analysis.

And all the collected information is available, all the time.

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Domino Health Monitor

For the special need of domino centric server monitoring, panagenda has created some special views within the panagenda GreenLight rich client work space, to help you to identify the most important domino statistics on all monitored servers at one glance.



To open the Domino Health Monitor, select the "Live Monitor" icon on the task bar area.

| Live Monitor | | | | | | | | | | | |
|--------------------------------------|-----|--------------|----------|-----------|--------|-----------------------|------|------|------|----------------|--|
| Network Status Overview | | | | | | Domino Health Monitor | | | | | |
| Server | | Domino Tasks | | | | | Mail | | | Database | |
| Name | SAI | Admin... | Datab... | Replic... | Router | SMTP ... | Dead | Wait | Hold | ms_to_datab... | |
| ⚠ apophis/panagenda | | ● | ● | ● | ● | ● | 0 | 0 | 0 | | |
| ● ANDAMAN/STARFISH | | | | | | | 4 | 0 | 449 | | |
| ● anubis/panagenda | | ● | ● | ● | ● | ● | 60 | 0 | 0 | ● 0 | |
| ● cronus/panagenda | | ● | ● | ● | ● | ● | 33 | 0 | 0 | ● 0 | |
| ● marduk/panagenda | | | | | | | 0 | 0 | 0 | | |
| ● tanith/panagenda | | | | | | | 0 | 0 | 0 | | |
| ● tiamat/panagenda | | | | | | | 0 | 0 | 0 | | |
| ● Vienna01/MS | | | | | | | 1309 | 20 | 0 | | |
| Double-click to see Domino details | | | | | | | | | | | |
| Configure Columns and Thresholds ... | | | | | | | | | | | |
| Last refresh: 30.06.2010 14:23 | | | | | | | | | | | |

Screenshot 3: Live Montior

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The domino health monitor per default shows you information about

- server availability index
- number of connected users
- availability of lotus domino tasks
- information about mailing status

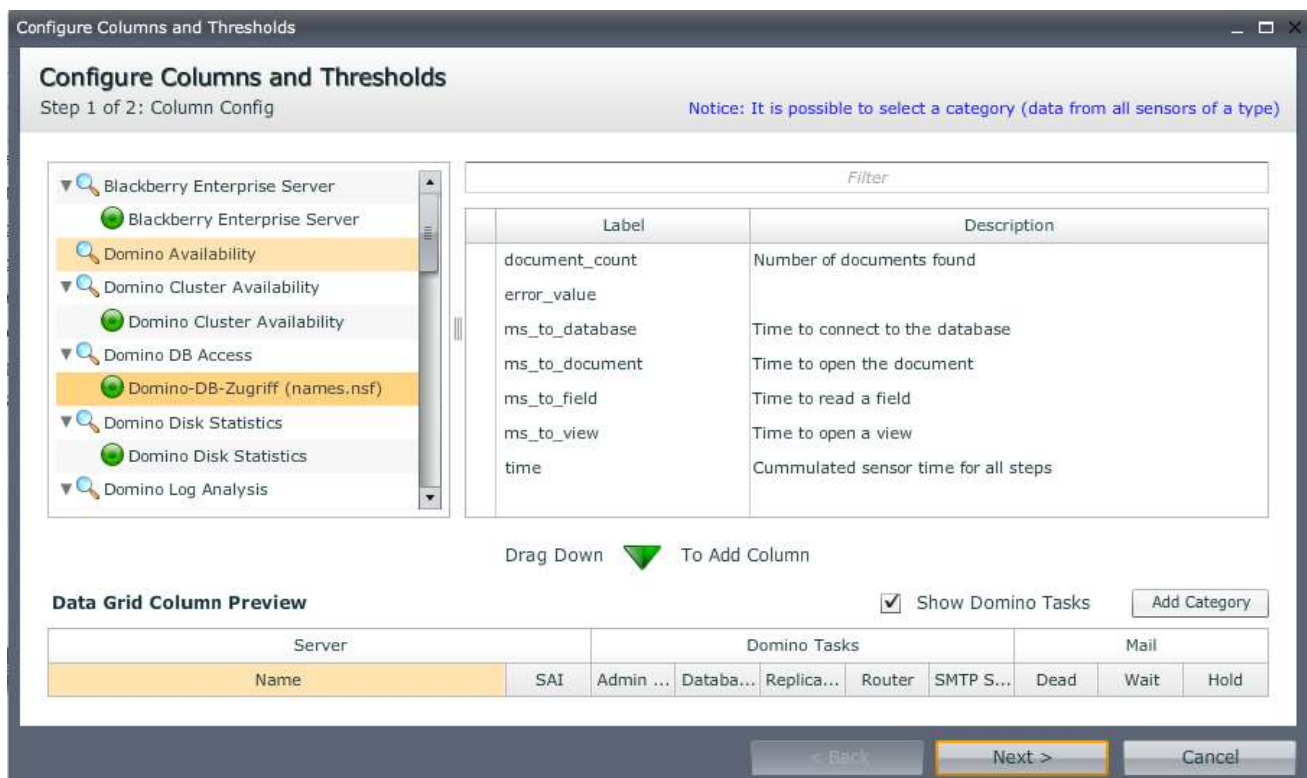
The displayed information is ordered by the sum of failures and warnings of a server's current state. So, the more failures and warnings a server has, the more his ranking within the server health monitor is. The host with the most failures and warnings stays on top of the list.

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Configure Columns and Thresholds

All columns within the health monitor can be modified to fit any user's personal preference. Display thresholds give you the method to modify the levels for warnings and failure messages for statistical values displayed within the domino health monitor.

Select "Configure columns and thresholds..." to open a dialog to for configuration.



Screenshot 4: Columns and user display thresholds

Since panagenda GreenLight 2.3.0, it is possible to customize the complete layout of the domino health monitor. You can select any displayable value from the list of available entities and place it on any position within the domino health monitor data grid.

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Column Entries

To add a new column, select a sensor from the list box on the left side. In the right list box, a list of available values from this sensor and a description will be displayed. Just drag a selected value onto the Data Grid Column Preview and drop it on a position you prefer.

You can move grid entries by dragging and dropping them within the grid.

By clicking on a grid entry with the right mouse button, you can access additional options from a context menu, like copy, cut and paste.

Column Categories

To improve the readability of the health monitor data grid, you can create column categories to group multiple data columns under one caption.

To create a new category, just select the "Add Category" Button and enter you desired category name.

Currently, it is not possible to add columns to categories with drag and drop. You have to use cut and paste from the context menu of a column to move it into a category. The drag and drop feature will be release in a future version of panagenda GreenLight.

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Domino Tasks

There is some special behavior implemented into the "Domino Tasks" category within the domino health monitor.

You cannot add or remove any columns from this category, you can only enable or disable the whole category by checking or unchecking the "show domino tasks" check box next to the "add category" button.

The domino tasks category has this restricted configuration and modification options for standard users due to its special data collection and calculation background.

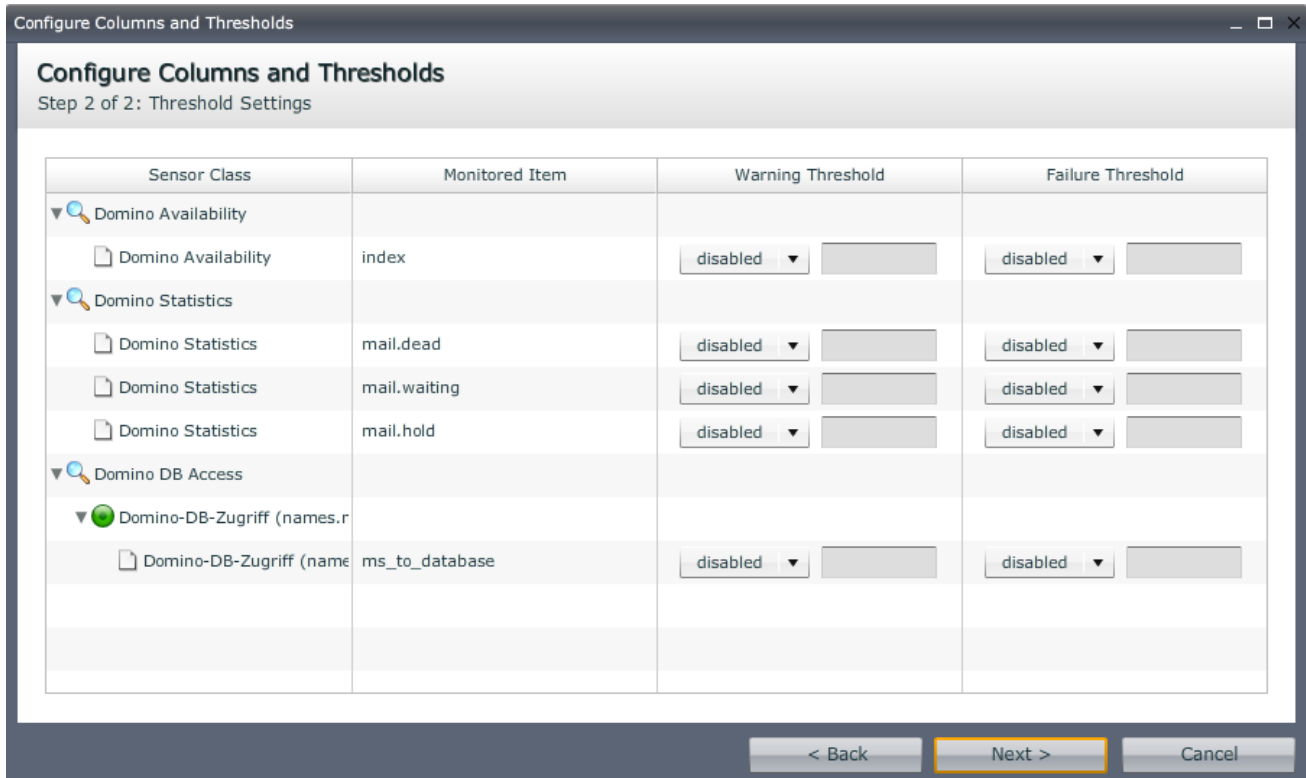
To configure task monitoring please ask your local GreenLight Administrator for help.

Select "Next" to go to the next page and adjust your user threshold setting.



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User Thresholds



| Sensor Class | Monitored Item | Warning Threshold | Failure Threshold |
|----------------------------|----------------|-------------------|-------------------|
| Domino Availability | | | |
| Domino Availability | index | disabled | disabled |
| Domino Statistics | | | |
| Domino Statistics | mail.dead | disabled | disabled |
| Domino Statistics | mail.waiting | disabled | disabled |
| Domino Statistics | mail.hold | disabled | disabled |
| Domino DB Access | | | |
| Domino-DB-Zugriff (names.r | | | |
| Domino-DB-Zugriff (name | ms_to_database | disabled | disabled |

< Back Next > Cancel

Screenshot 5: User thresholds

For each displayed value you can choose a comparator and a limit value. Every time, the domino health monitor display is refreshed, these thresholds are used with the corresponding values and the display is changed according to the defined rules. The failure condition always overrules the warning condition, so if both conditions result is true, the value will display as failure.

All column and threshold settings are stored within the current users profile and are only available to this user. Changing thresholds does not affect settings of other users.

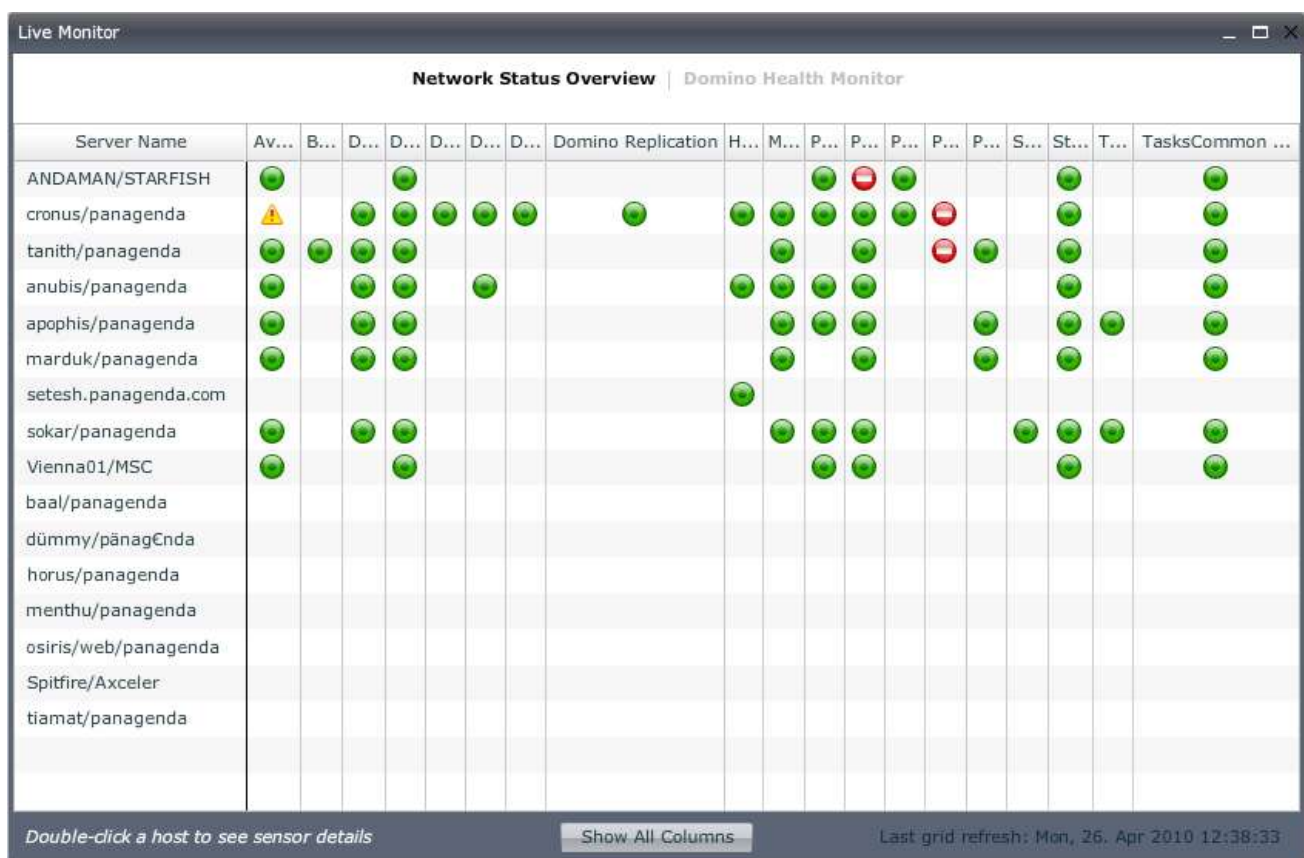
Select "Next" to store your settings to your user profile. Changed settings are applied immediately.

Selecting "Cancel" will close the settings dialog without performing any changes.

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Network Status Overview

The network status overview is a tabular view of your current sensor array. Ordered by the host name, all currently active sensors are displayed by its current sensor state. The sensors state is defined by the sensor itself. For more information about the meaning of the different states for a specified sensor, please see chapter "Sensors". Empty fields within columns identify a not assigned sensor.



| Server Name | Av... | B... | D... | D... | D... | D... | D... | Domino Replication | H... | M... | P... | P... | P... | P... | P... | S... | St... | T... | TasksCommon ... |
|----------------------|-------|------|------|------|------|------|------|--------------------|------|------|------|------|------|------|------|------|-------|------|-----------------|
| ANDAMAN/STARFISH | ● | | | ● | | | | | | | ● | ● | ● | ● | | | ● | | ● |
| cronus/panagenda | ● | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | ● |
| tanith/panagenda | ● | ● | ● | ● | | | | | | ● | ● | ● | ● | ● | ● | | ● | | ● |
| anubis/panagenda | ● | | ● | ● | | ● | | | ● | ● | ● | ● | ● | ● | | | ● | | ● |
| apophis/panagenda | ● | | ● | ● | | | | | | ● | ● | ● | ● | | ● | | ● | ● | ● |
| marduk/panagenda | ● | | ● | ● | | | | | | ● | ● | ● | ● | | ● | | ● | | ● |
| setesh.panagenda.com | | | | | | | | | ● | | | | | | | | | | |
| sokar/panagenda | ● | | ● | ● | | | | | | ● | ● | ● | ● | | | ● | ● | ● | ● |
| Vienna01/MS | ● | | | ● | | | | | | | ● | ● | | | | | ● | | ● |
| baal/panagenda | | | | | | | | | | | | | | | | | | | |
| dummy/panagenda | | | | | | | | | | | | | | | | | | | |
| horus/panagenda | | | | | | | | | | | | | | | | | | | |
| menthu/panagenda | | | | | | | | | | | | | | | | | | | |
| osiris/web/panagenda | | | | | | | | | | | | | | | | | | | |
| Spitfire/Axceler | | | | | | | | | | | | | | | | | | | |
| tiamat/panagenda | | | | | | | | | | | | | | | | | | | |

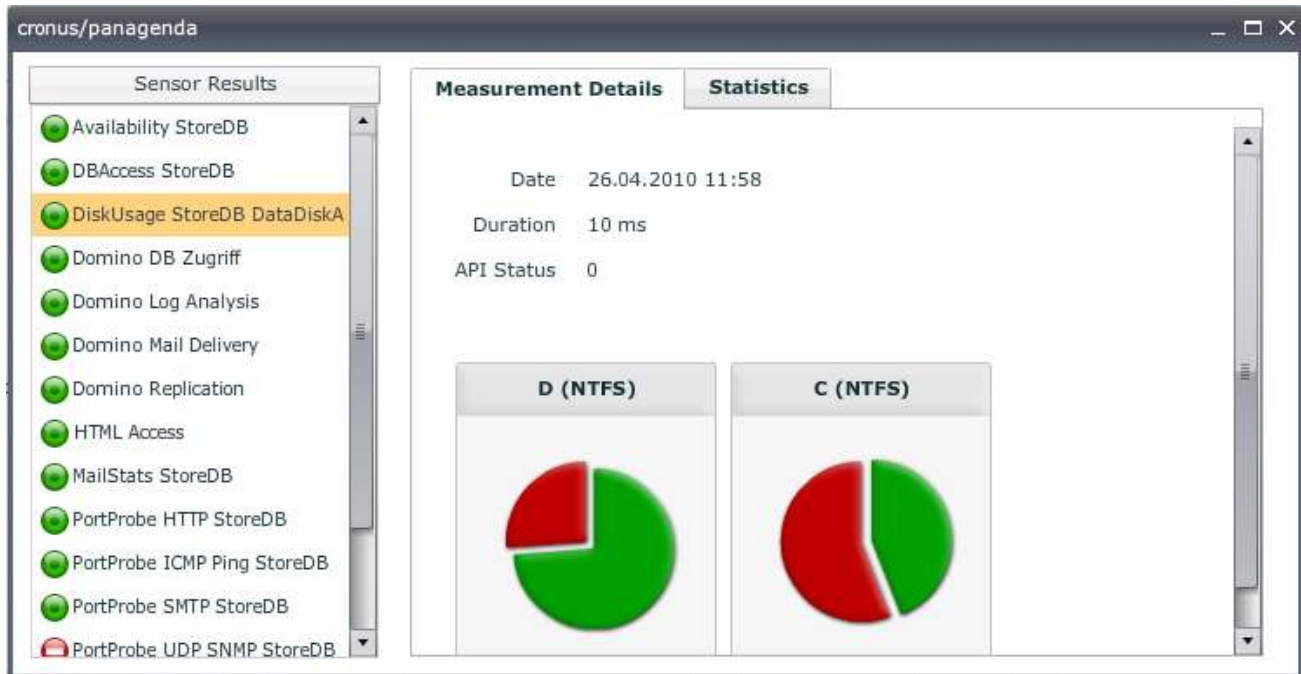
Double-click a host to see sensor details Show All Columns Last grid refresh: Mon, 26. Apr 2010 12:38:33

Screenshot 6: Network Status

Selecting a host by double clicking its row opens a dialog, where you can choose from a list of all sensors assigned to this entry.

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Selecting a sensor by double clicking its name displays the sensors current measurement data. The displayed data depends on the sensors type and configuration and its current state. For more information about a sensors configuration and measurement result, please see chapter "Sensors"

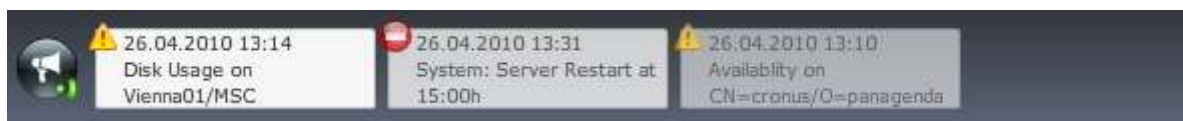


Screenshot 7: Sensor Detail Sample

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Event Notification

The event notification area displays a list of messages from the panagenda GreenLight virtual appliance. Messages are created by sensor actions and sent to every available panagenda GreenLight rich user dashboard. For more information sensor action see chapter "Actions". In addition to the notification list popup messages are used to display important panagenda GreenLight events.

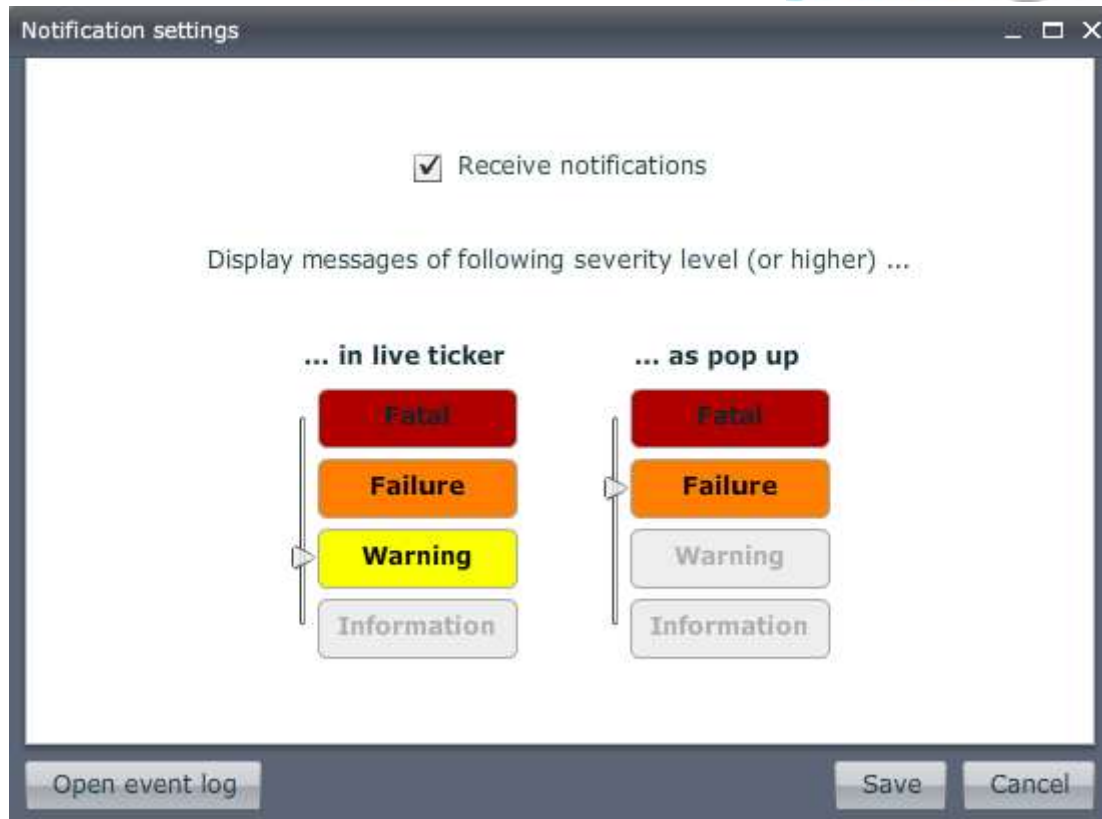


Screenshot 8: Notifications

The newest event is displayed leftmost, pushing older events to the right.

By selecting the notification area configuration button, you can modify the threshold values by notification severity level. Levels can be set for messages in the notification area and for message boxes separately.

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Screenshot 9: Notification Settings

Possible threshold values for display are:

- information
- warning
- failure
- fatal

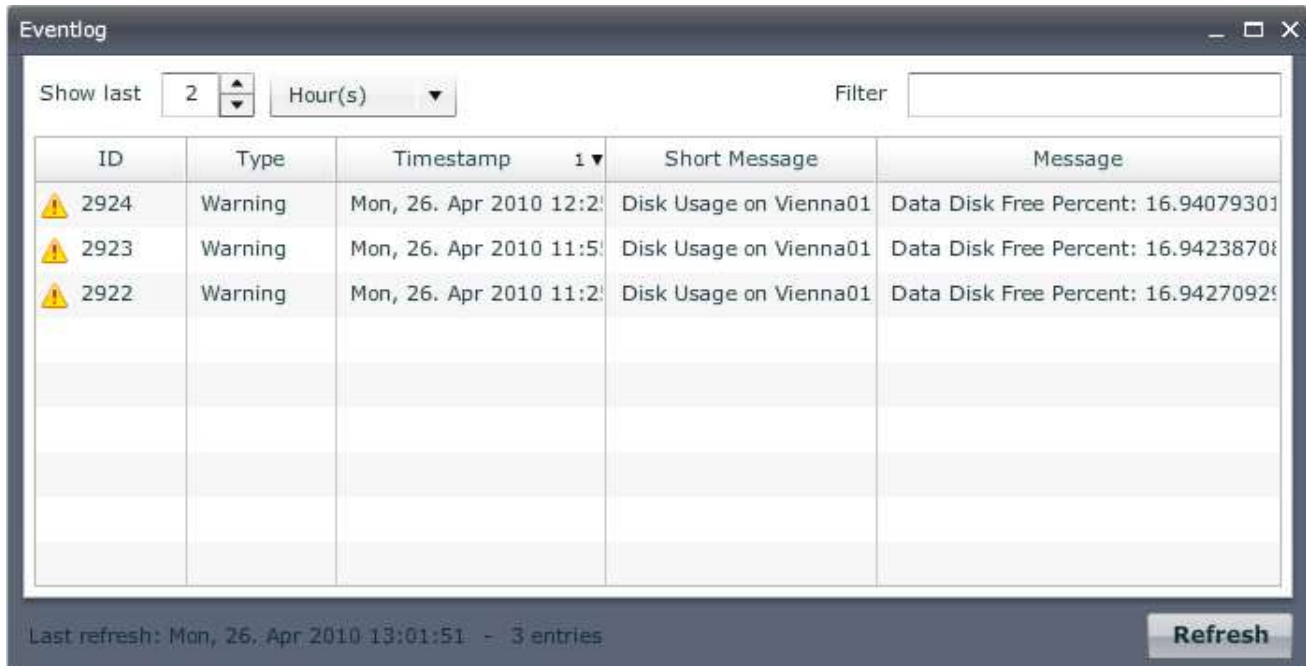
In addition, you can turn notification on or off by checking or unchecking "receive notifications".

From the event notification configuration dialog, you can access the event log, showing an historical list of all stored events on your panagenda GreenLight virtual appliance.

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Event Log

The event log gives you a tabular list of all panagenda GreenLight virtual appliance events. The event list is ordered by date and can be changed from ascending to descending by selecting the column header of the timestamp column.



| ID | Type | Timestamp | Short Message | Message |
|------|---------|------------------------|------------------------|-------------------------------------|
| 2924 | Warning | Mon, 26. Apr 2010 12:2 | Disk Usage on Vienna01 | Data Disk Free Percent: 16.94079301 |
| 2923 | Warning | Mon, 26. Apr 2010 11:5 | Disk Usage on Vienna01 | Data Disk Free Percent: 16.94238701 |
| 2922 | Warning | Mon, 26. Apr 2010 11:2 | Disk Usage on Vienna01 | Data Disk Free Percent: 16.94270921 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Last refresh: Mon, 26. Apr 2010 13:01:51 - 3 entries Refresh

Screenshot 10: Event Log

You can filter the amount of displayed data by adjusting the time range or using the full text filter option. A maximum number of 200 events is stored on the panagenda GreenLight virtual appliance for reviewed.

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Sensors

Panagenda GreenLight's data collection is based on a vast set of so called sensors that measure various kind of information. Although in this current version, panagenda GreenLight's sensors are specialized in measuring network utilization and domino server behavior the possibilities for sensors are limitless.

What are sensors in panagenda GreenLight?

A panagenda GreenLight sensor is a program module designed to accomplish a single measurement task on a single target. This module can use various configuration data to perform its duty. With panagenda GreenLight, setup and configuration of sensor modules is only allowed to panagenda GreenLight Administrators.

The following pages will give you information about the current available sensor modules the data they deliver and the information that can be gained from it.

Many sensor results return a list of values as result set from a measurement request. Most of the names of these list items are kept the same as reported by the sensor request. In some cases additional items are added for further convenience and easier readability.

Some of these modules may require in depth knowledge about the measured target or the measured software for correct interpretation of the collected values.

Please refer to the appropriate manual or contact your local administrator for further information on specific items.

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General information for all sensors

All sensors show their own runtime, displayed as "duration" in milliseconds, and its last call time, shown as "date".

Sensor information displays can consist of one or more pages. Page one always shows a quick overview about the status of the sensor itself and basic measurement information.

Detailed information can be found on further pages.

To change pages just use the tabs on top of the sensor display.

Tree Views

All tree views support favorites. Favorites can be set or reset by selecting the star icon in the leftmost column of each tree view. The tree can display only your favorite items by checking the "show favorites only" check box.

Each tree view can be searched with a full text search using the "filter" text box. Just enter a search term or a part of the item name you are looking for, and the tree will be filtered in real time, showing only matching items. Clear the "filter" text box to reset filtering.

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Domino Server Details

By double clicking a server within the domino health monitor table a window with detailed information about the selected server opens.

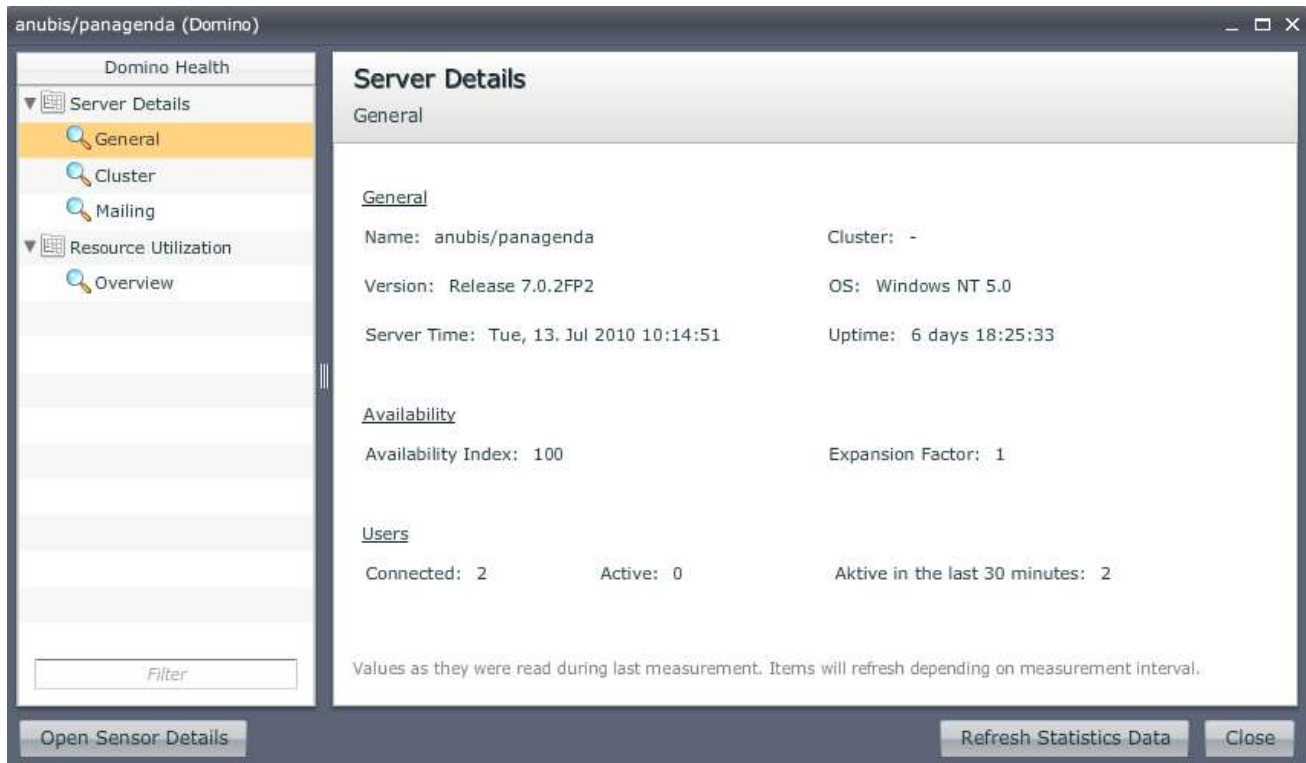
The domino server detail window offers a quick and categorized access to various domino server information.

Currently, four different information categories are available.

- Server details – general
- Server details – cluster
- Server details – mailing
- Resource Utilization – overview

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Server details – general



anubis/panagenda (Domino)

Domino Health

Server Details

- General
- Cluster
- Mailing
- Resource Utilization
- Overview

Filter

Server Details

General

General

Name: anubis/panagenda Cluster: -

Version: Release 7.0.2FP2 OS: Windows NT 5.0

Server Time: Tue, 13. Jul 2010 10:14:51 Uptime: 6 days 18:25:33

Availability

Availability Index: 100 Expansion Factor: 1

Users

Connected: 2 Active: 0 Active in the last 30 minutes: 2

Values as they were read during last measurement. Items will refresh depending on measurement interval.

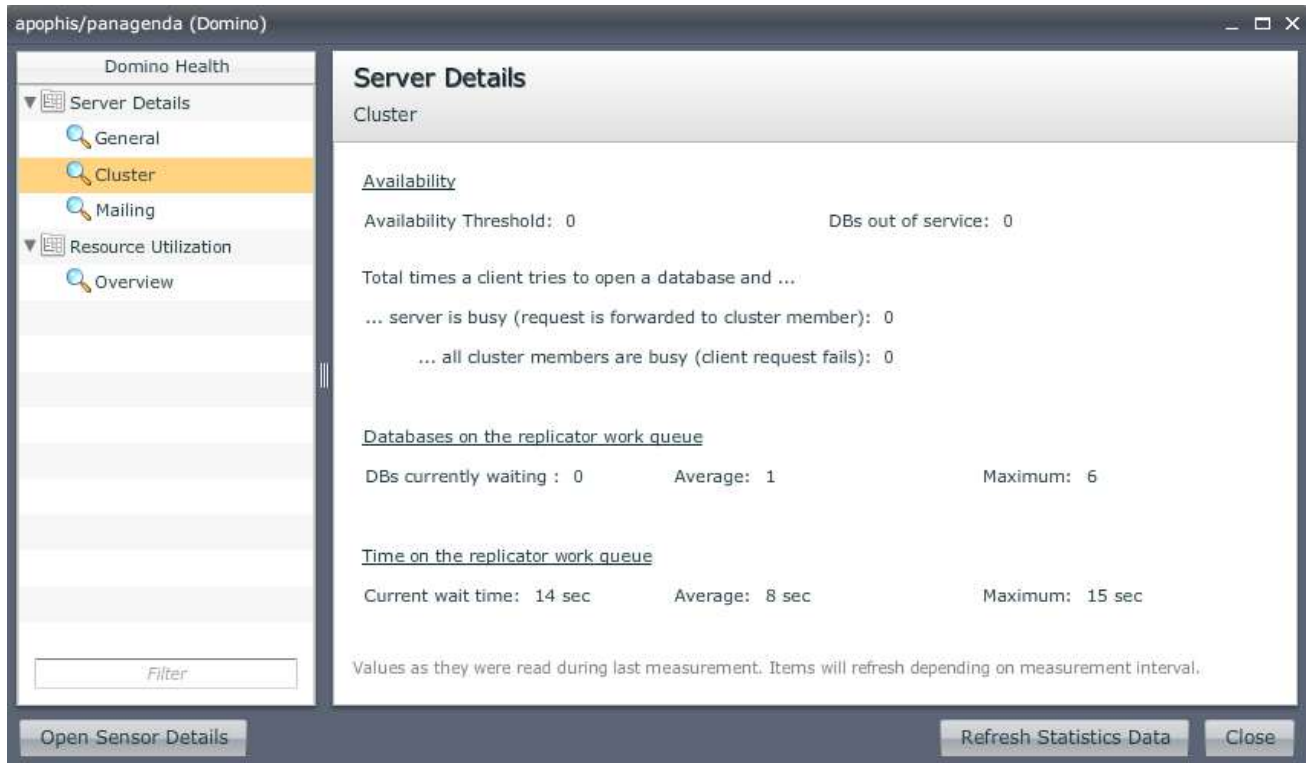
Open Sensor Details Refresh Statistics Data Close

Screenshot 11: Server details - general

This detail page gives you general information about the domino server, like its name, version and server time.

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Server details – cluster



apophis/panagenda (Domino)

Domino Health

- Server Details
 - General
 - Cluster**
 - Mailing
- Resource Utilization
 - Overview

Filter

Server Details

Cluster

Availability

Availability Threshold: 0 DBs out of service: 0

Total times a client tries to open a database and ...

... server is busy (request is forwarded to cluster member): 0

... all cluster members are busy (client request fails): 0

Databases on the replicator work queue

DBs currently waiting : 0 Average: 1 Maximum: 6

Time on the replicator work queue

Current wait time: 14 sec Average: 8 sec Maximum: 15 sec

Values as they were read during last measurement. Items will refresh depending on measurement interval.

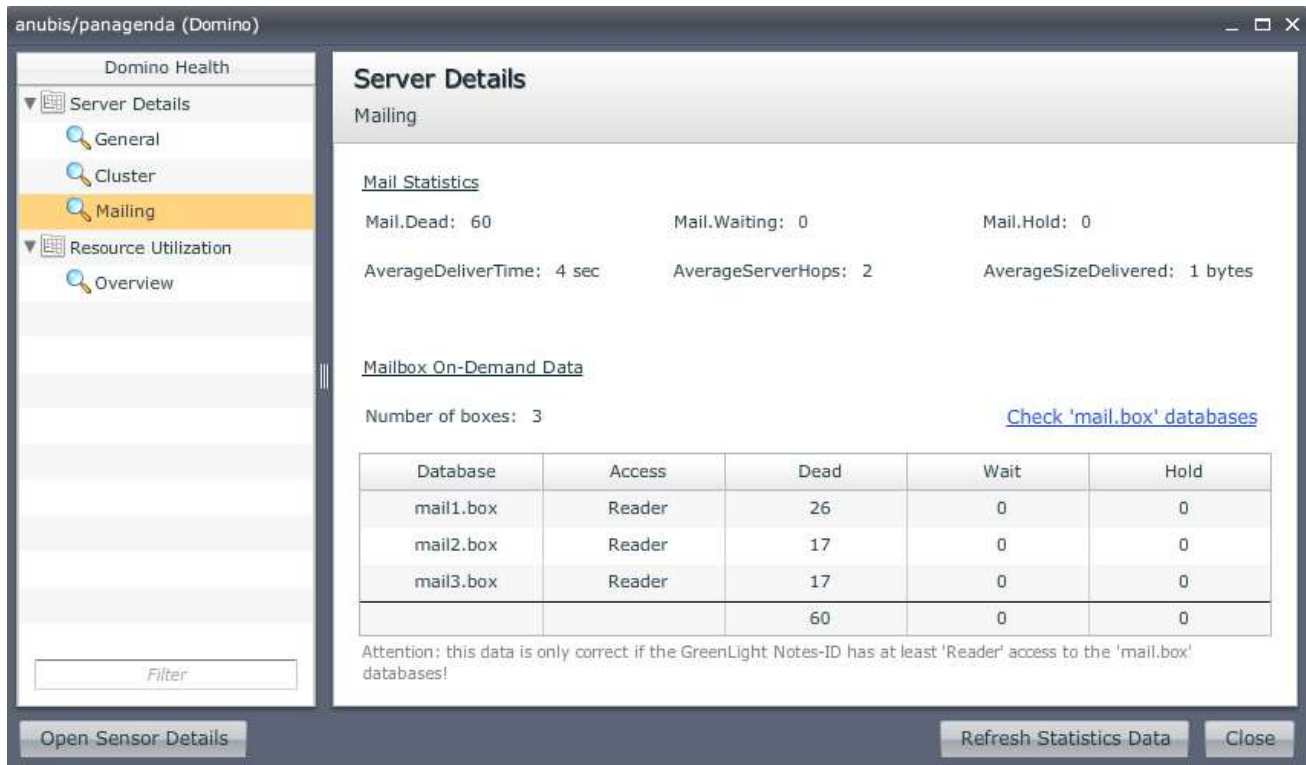
Open Sensor Details Refresh Statistics Data Close

Screenshot 12: Server details – cluster

This page gives you detailed information about cluster specific information, if the server is a member of a cluster.

expect the
unexpected

Server details – mailing



Server Details
Mailing

Mail Statistics

Mail.Dead: 60 Mail.Waiting: 0 Mail.Hold: 0

AverageDeliverTime: 4 sec AverageServerHops: 2 AverageSizeDelivered: 1 bytes

Mailbox On-Demand Data

Number of boxes: 3 [Check 'mail.box' databases](#)

| Database | Access | Dead | Wait | Hold |
|-----------|--------|------|------|------|
| mail1.box | Reader | 26 | 0 | 0 |
| mail2.box | Reader | 17 | 0 | 0 |
| mail3.box | Reader | 17 | 0 | 0 |
| | | 60 | 0 | 0 |

Attention: this data is only correct if the GreenLight Notes-ID has at least 'Reader' access to the 'mail.box' databases!

Open Sensor Details Refresh Statistics Data Close

Screenshot 13: Server details – mailing

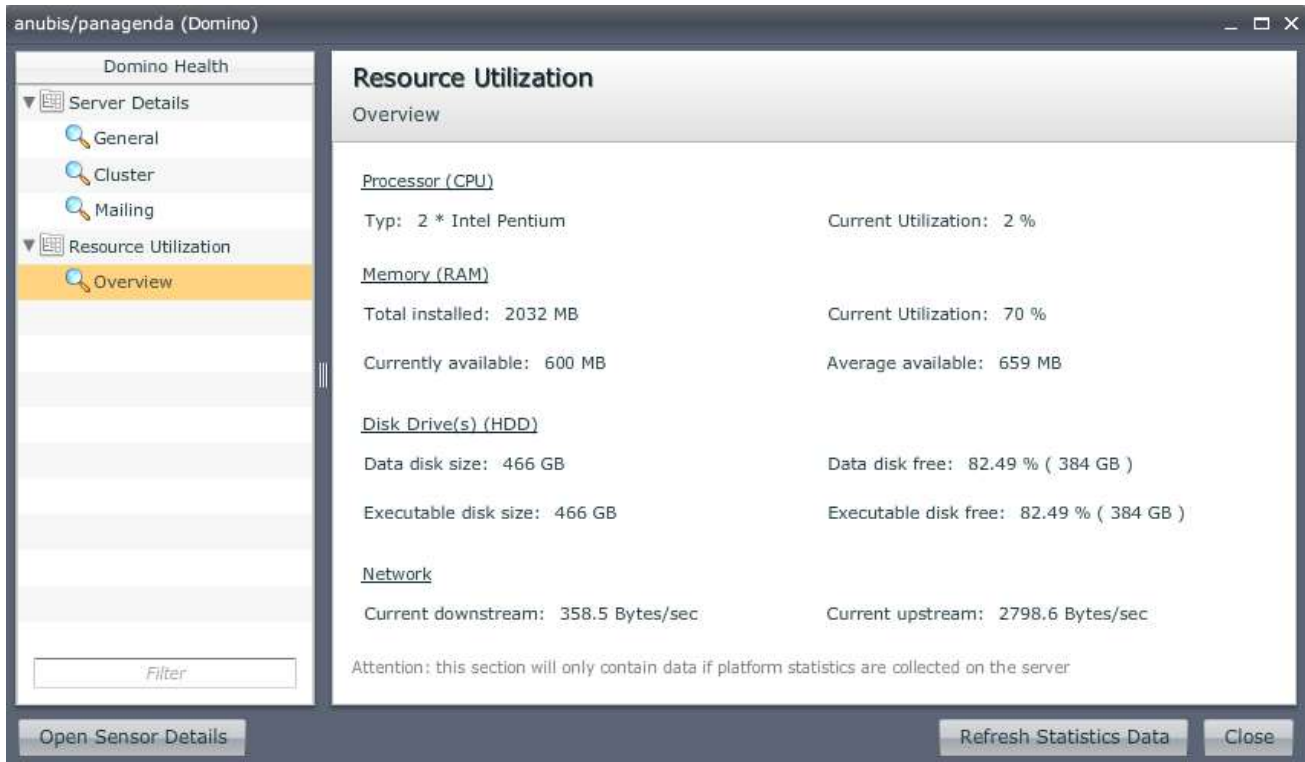
This page gives information about mail routing and mail router box behavior. In addition to the default information about dead, hold and waiting mails, extracted from the domino server statistic information, an on demand query can be triggered by selecting "Check 'mail.box' databases".

By selecting the on demand analysis, the server's mail router boxes are accessed directly, using the panagenda GreenLight user ID, and the current count of documents in the various delivery states will be extracted.

Using this direct access mechanism can give a more exact and detailed information about your mail router boxes than using domino statistics.

expect the
unexpected

Resource utilization – overview



anubis/panagenda (Domino)

Domino Health

- Server Details
 - General
 - Cluster
 - Mailing
- Resource Utilization
 - Overview

Filter

Resource Utilization

Overview

Processor (CPU)

Typ: 2 * Intel Pentium Current Utilization: 2 %

Memory (RAM)

Total installed: 2032 MB Current Utilization: 70 %

Currently available: 600 MB Average available: 659 MB

Disk Drive(s) (HDD)

Data disk size: 466 GB Data disk free: 82.49 % (384 GB)

Executable disk size: 466 GB Executable disk free: 82.49 % (384 GB)

Network

Current downstream: 358.5 Bytes/sec Current upstream: 2798.6 Bytes/sec

Attention: this section will only contain data if platform statistics are collected on the server

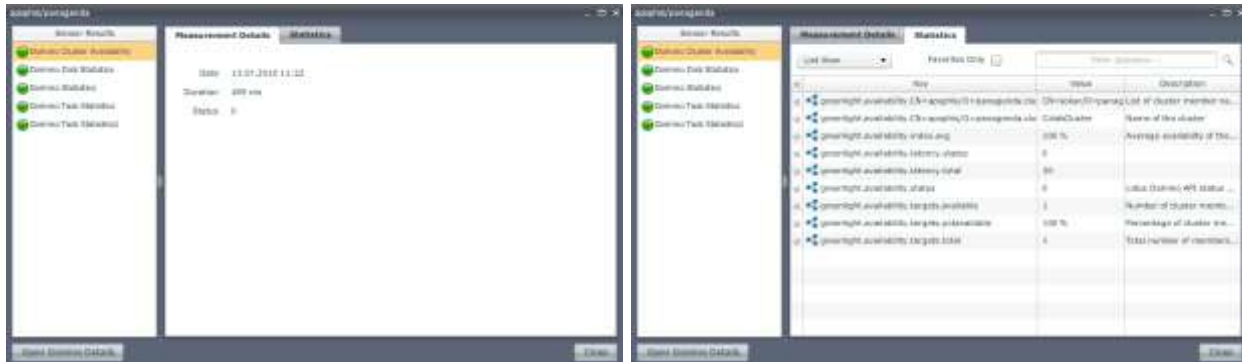
Open Sensor Details Refresh Statistics Data Close

Screenshot 14: Resource utilization - overview

This page gives detailed information about various server utilization indicators.

expect the
unexpected

IBM Lotus Domino Cluster Availability Index



This sensor gives you information about the Lotus Domino Cluster Server Availability Index (CAI) and connection latency between the client (in this case the panagenda GreenLight appliance) and member server of a cluster.

The CAI is a percentage value between 0 and 100 and is equivalent to a SAI of a single domino server. Detailed information about Domino SAI can be found in the Domino Administrator help.

Connection latency is calculated as a sum from client to server and server to client connection times.

If an error occurs while measuring, the domino API status is set to the appropriate field.

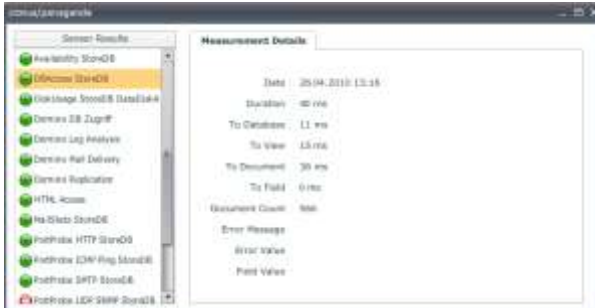
Important sensor results:

- Server Availability Index
- Client to Server Latency
- Server to Client Latency

Data source: Lotus Notes API

expect the
unexpected

IBM Lotus Domino Database Access Sensor



This sensor does a basic Lotus Domino Database Access simulation. The panagenda GreenLight appliance acts as an Lotus Notes client and tries to access a specified database, measuring the access times.

If an access attempt fails, a Lotus Notes API error value is returned

Important sensor results:

- Domino Access Times
 - to Database
 - to View
 - to one or more Documents
 - to Field
- Number of accessed documents
- Domino Error Codes

Data source: Lotus Notes API



This sensor is deprecated and will be removed with Release 2.5.0. Please use the new IBM Lotus Domino Cluster Database Access Sensor to monitor database access.

expect the
unexpected

IBM Lotus Domino Cluster Database Access Sensor



This sensor simulates a Lotus Domino database client access. The panagenda GreenLight appliance acts as a Lotus Notes client and tries to access a specified database, measuring the access times.

The sensor is cluster aware for standard Lotus Domino clusters. If an access attempt fails, a Lotus Notes API error value is returned

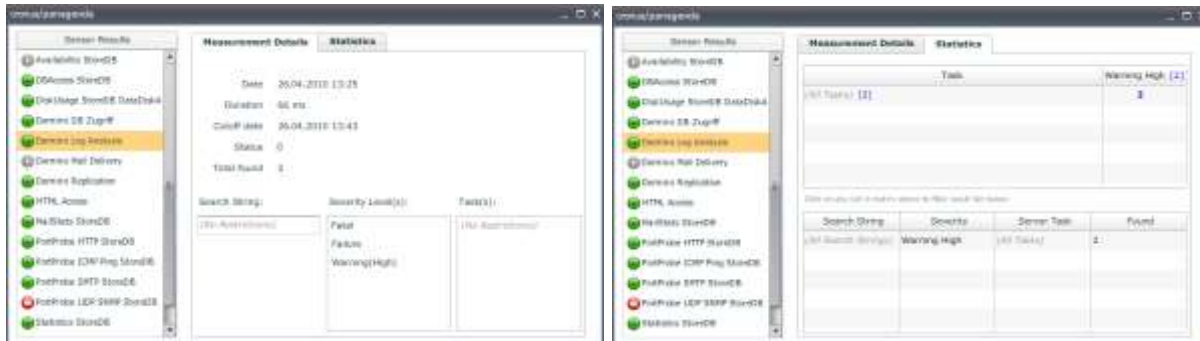
Important sensor results:

- Domino Access Times
 - to Database
 - to View
 - to one or more Documents
 - to Field
- Number of accessed documents
- Domino Error Codes

Data source: Lotus Notes API

expect the
unexpected

Domino Log Analysis Sensor



This sensor can be used for Lotus Domino log database analysis. You can provide a set of search words and the sensor counts the occurrence of the provided words within the last measurement period and returns a categorized view of the results.

By selecting a result line from the list of tasks, the corresponding log entries, including log date and time, will be shown. Currently, due to memory and transfer considerations, a maximum number of 100 log lines can be extracted and displayed.

If access to the log database fails, a Lotus Notes API error value is returned

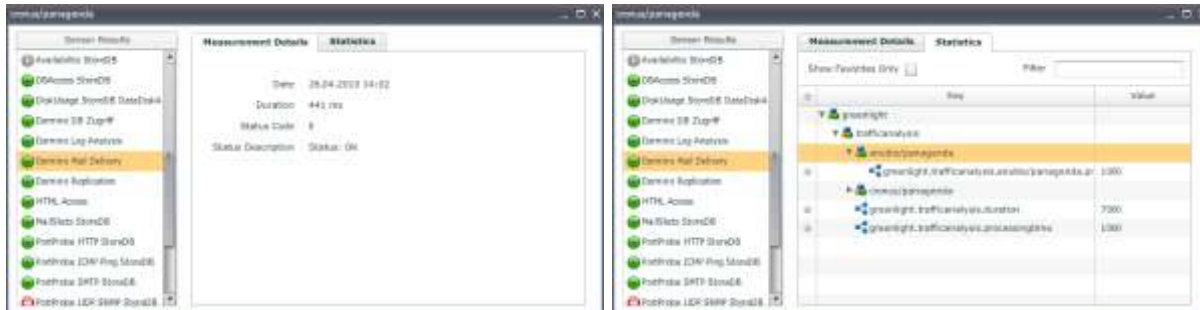
Important sensor results:

- Categorized count of occurrence of provided search words

Data source: Lotus Notes API

expect the
unexpected

Domino Mail Delivery Sensor



This sensor simulates sending a mail to a mail in database on a target server and measures the times and hops from the source server to the target server, helping you to identify mail routing problems.

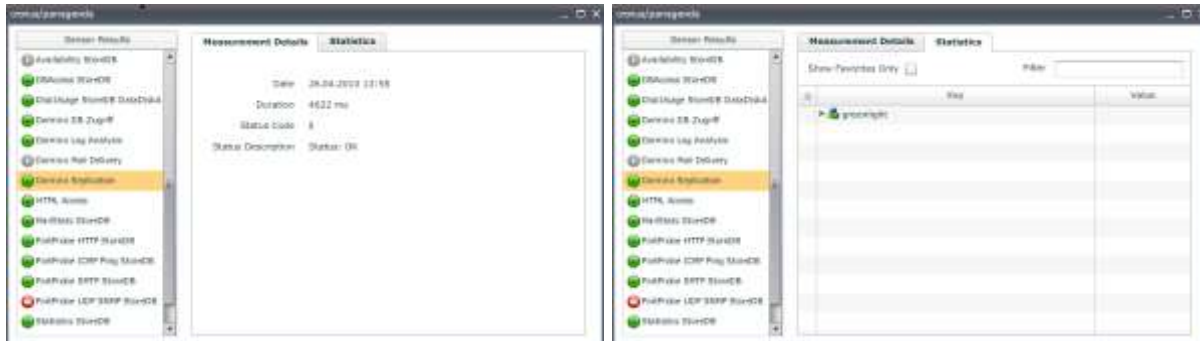
Important sensor results:

- Domino Mail Delivery Times

Data source: Lotus Notes API

expect the
unexpected

Domino Replication Sensor



This sensor simulate database replication to a database a a target server and measures the time from source to a target server and helps to identify replication problems.

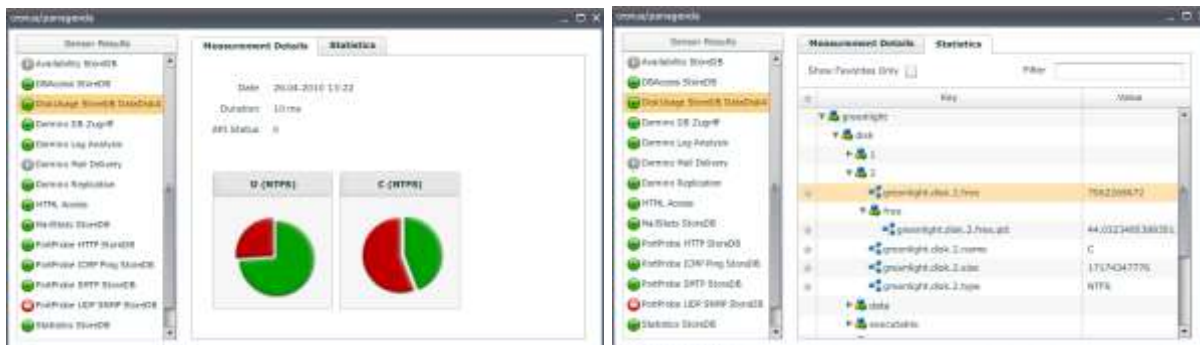
Important sensor results:

- Domino Replication Delivery Times

Data source: Lotus Notes API

expect the
unexpected

Domino Statistics – Disk Usage Sensor



This sensor represents the disk facility of the domino statistics information. The disk statistics are parsed and interpreted by panagenda GreenLight to improve readability. (Interpreted values can be identified by starting with "greenlight").

For a quick overview disk space information is shown on a quick pie chart. Detailed value information can be gained from a data tree.

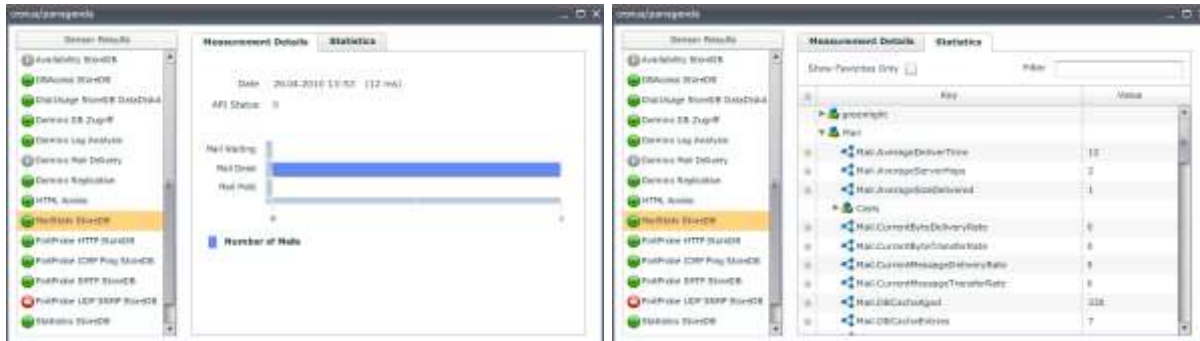
Important sensor results:

- Domino Disk Statistics
 - Available Disks (Type and Name)
 - Free Space (in Bytes and in Percentage)
 - Used Space (in Bytes and in Percentage)

Data source: Lotus Domino Statistics

expect the
unexpected

Domino Statistics – Mail Sensor



This sensor represents the mail facility of the domino statistics information.

For quick information about mail routing, a bar chart showing waiting, dead and hold mails is available. Detailed value information can be gained from a data tree.

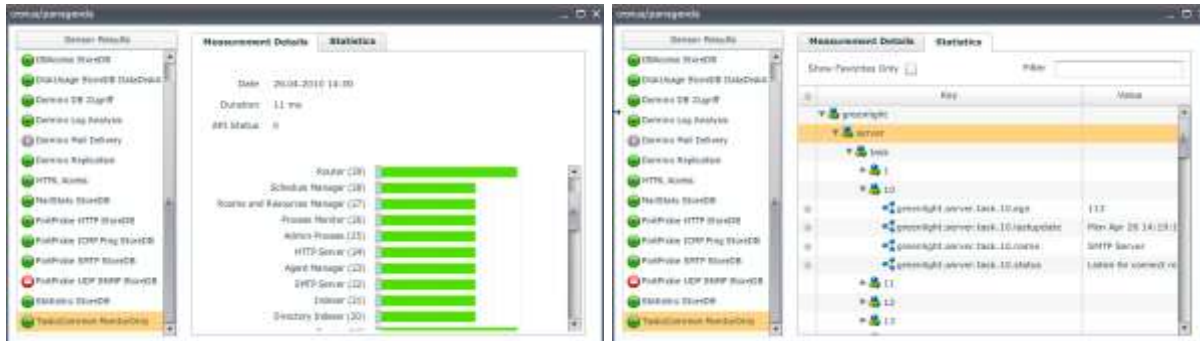
Important sensor results:

- Domino Mail Statistics
 - Transfer Information
 - Cache Information
 - Mail.box Information
 - Protocol Information

Data source: Lotus Domino Statistics

expect the
unexpected

Domino Statistics – Tasks & Cluster Sensor



These two sensors give information about tasks on a domino server. To identify if a task is running its last update time is measured and compared to the actual system time. Update times are represented in a bar chart to identify halted or unresponsive tasks.

The tree view shows all information about domino tasks like its name an instance and its last system message.

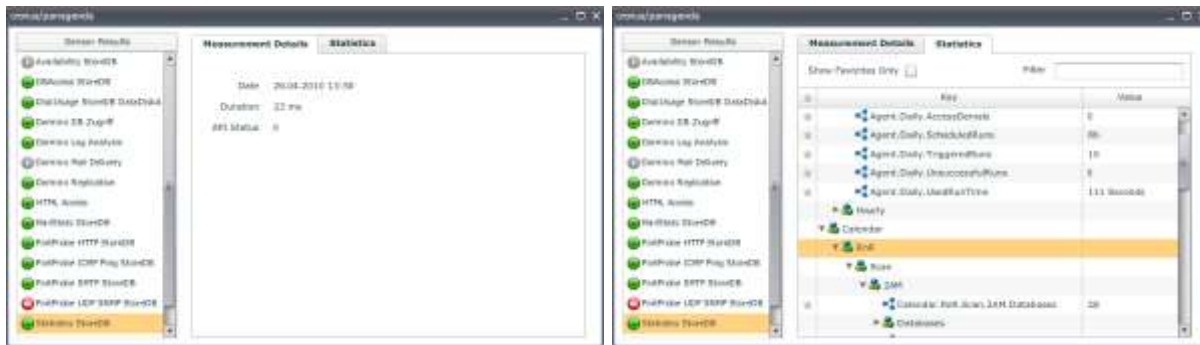
Important sensor result:

- Domino Task Information
 - Single Server Information
 - Cluster Information

Data source: Lotus Domino Statistics

expect the
unexpected

Domino Statistics Sensor



This sensor reports the full domino statistics information, giving you all available system information from domino, including domino server add-ins reporting to the statistic block.

The full information is available through a tree view allowing structured browsing for a special value.

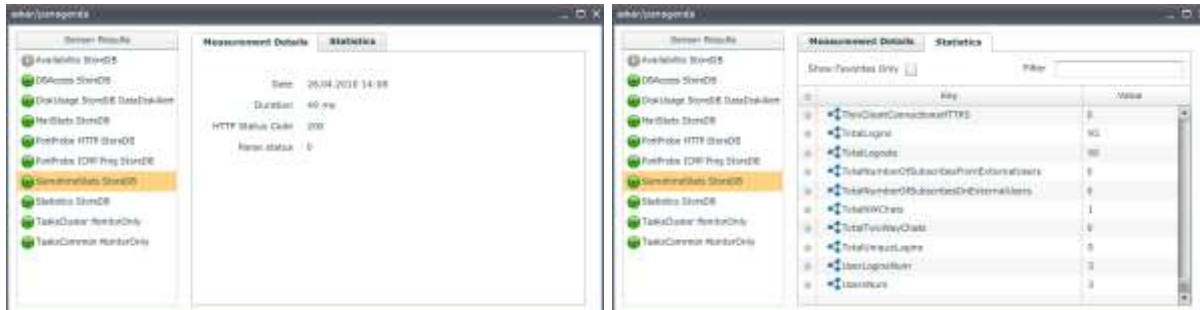
Important sensor result:

- Full Domino Statistics

Data source: Lotus Domino Statistics

expect the
unexpected

Lotus Sametime Statistics Sensor



This sensor gives detailed information about Lotus Sametime system statistics. All system statistics are shown in a tree view.

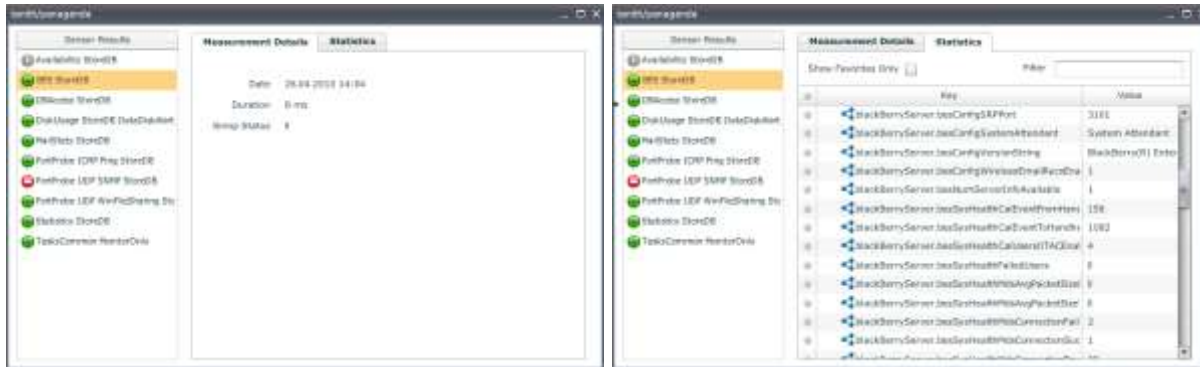
Important sensor result:

- Full Lotus Sametime Statistics

Data source: Lotus Sametime Statistics

expect the
unexpected

RIM BlackBerry Enterprise Server Health Sensor



This sensor reports BlackBerry Enterprise Server (BES) health statistics. Health information from the BES SNMP structure are collected. The information is shown in a tree view.

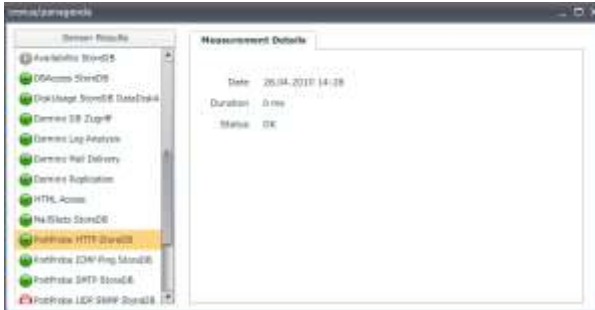
Important sensor results:

- BlackBerry Enterprise Server – Server Health

Data source: RIM BES SNMP MIB

expect the
unexpected

TCP/UDP Port Sensor & ICMP Sensor



These sensors do a simple port check and report its success or fail and the used time for the connection attempt. TCP and UDP can probe any valid port available (0-65535).

The ICMP sensor is a fully compliant raw ICMP PING, using ICMP to check a server's reachability.

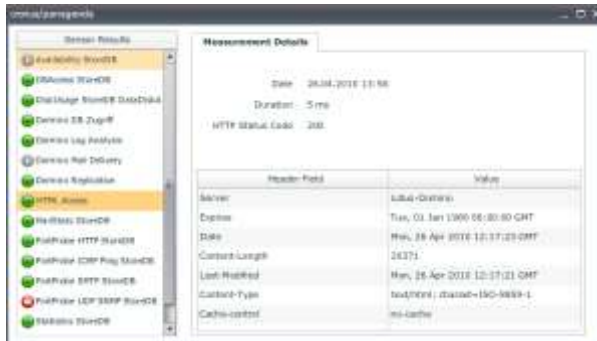
Important sensor result:

- Connection time and connection status
 - Any TCP Port
 - Any UDP Port
 - ICMP Compliant (PING)

Data source: RAW TCP/IP

expect the
unexpected

Internet Access Sensor



This sensor simulates a HTTP browser access to a defined URL and reports the HTTP access status and, if successful, the HTTP header. The header, if available, can be browsed through a list.

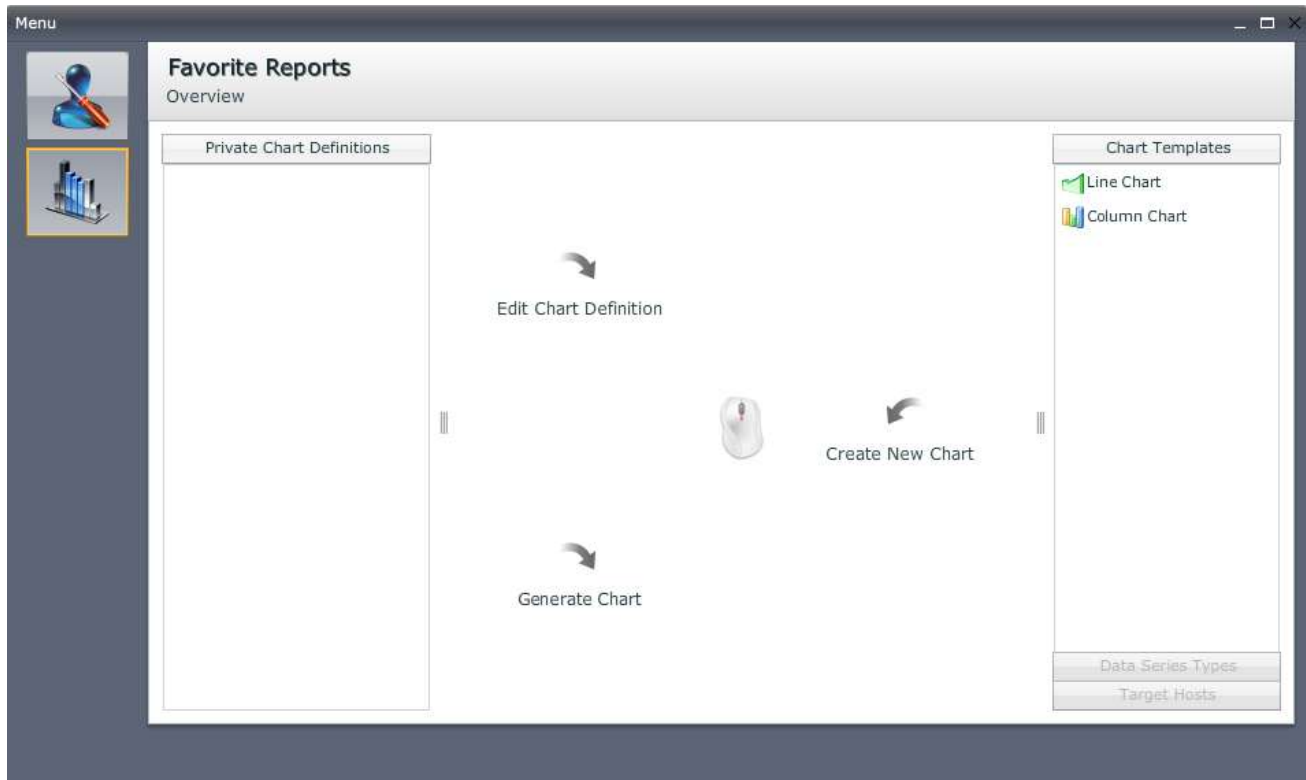
Important sensor result:

- Connection time
- HTTP Response Header

Data source: HTTP Protocol

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Chart Manager



By selecting the "favorite reports" icon from the panagenda GreenLight main menu you open the panagenda GreenLight report and chart manager. With the report and chart manager you can create and edit and view personal reports and charts. The manager screen is split into three parts and offers a very easy way to create significant reports and charts from collected monitoring data.

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Parts of the chart manager

- Left area
The left area holds definitions of already configured charts. All your personal charts are listed in this area.
- Center area
This is the action area of the report and chart manager. By using drag and drop on items from the left and right area of the manager you can invoke actions for chart creation, manipulation and rendering.
- Right area
This area helps you in chart creation and modification.
- Chart creating
Creating a new chart with panagenda GreenLight is very easy. You start the chart creating wizard by dragging a chart template from the template list to the "create new chart" area and dropping it there.
Currently, line charts and column charts are available with panagenda GreenLight.

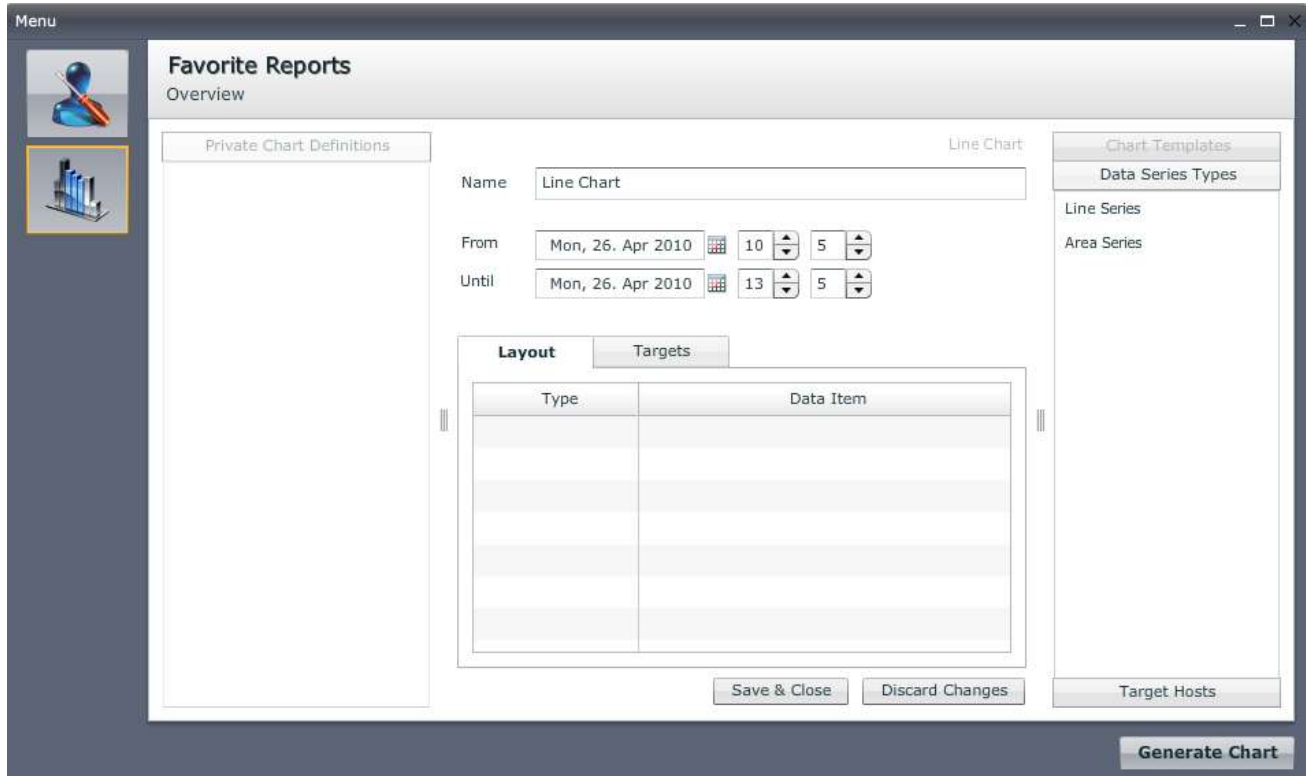
expect the
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Line chart

After dragging and dropping the line chart template over the "create new chart" action, the chart creation wizard opens and new options are available on the right area of the chart manager.



- **Name**
Giving your chart a memorable name helps you to identify it later. Only alphanumeric letters and blanks are allowed for naming your chart.
- **From/Thru**
This defines the first and the last displayed data on your chart. To select a date, you must use the date picker icon and select the desired date from the calendar popup. Then, adjust the times

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required for your analysis either by directly entering values for hour and minute or by adjusting the values by using the numeric stepper buttons.

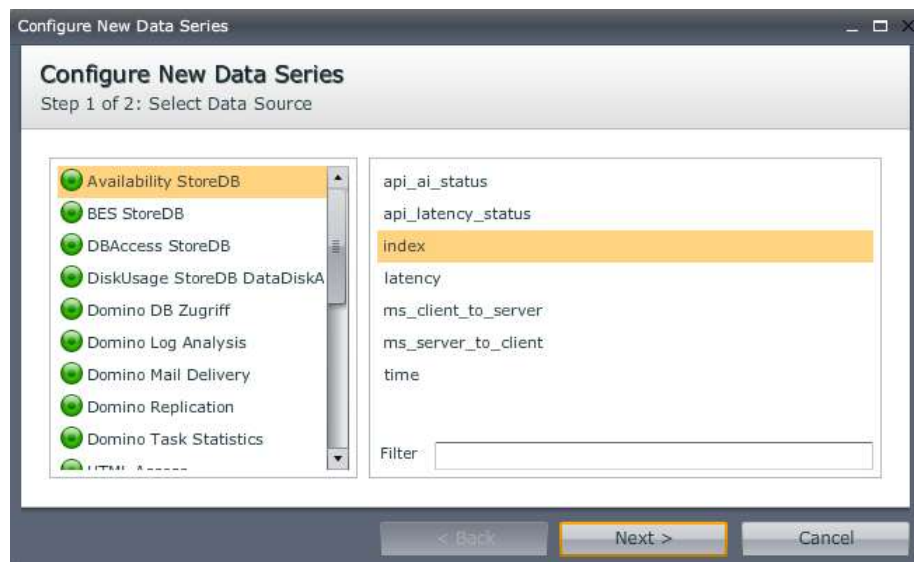
- Layout

After defining the borders of your chart, you can choose from a list of display option for your chart. When creating a line chart, the options currently are "line series" of "area series"

Dragging a data series type into the layout area starts an wizard that helps you configure a new data series for your chart.

Data Series Wizard

- Step 1

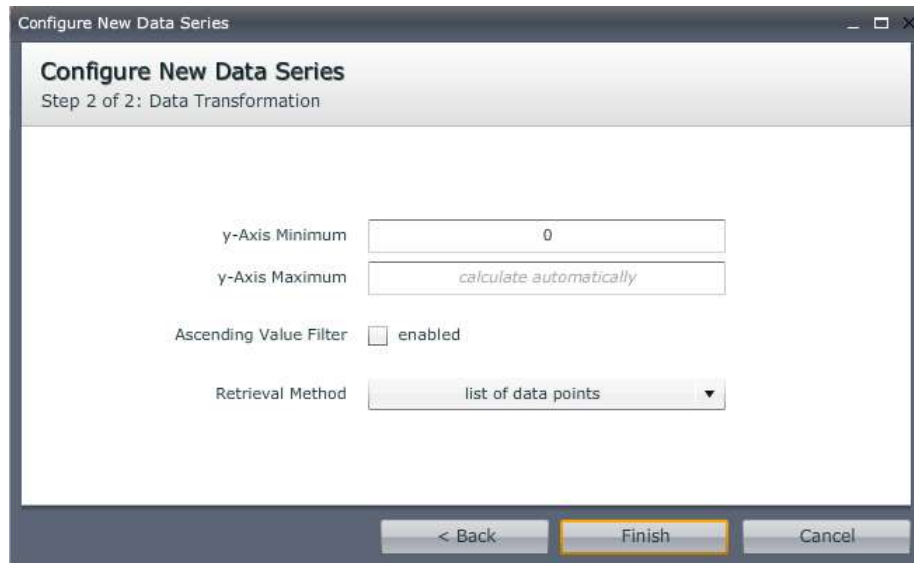


Select a sensor name from the list of available sensors. All configured sensors can be selected from this list, even if the sensor does not store its measurement into the database. If there is no data available for this sensor within the selected data range, you will be informed about missing data while chart rendering

By selecting a sensor name, a list of available fields will appear. Choose one or more fields from the list and select "Next"

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- Step 2



To correctly display your chosen data, some additional information is needed. You can define the minimum and the maximum value of the y-Axis of your chart. Just enter a numeric value into the minimum and maximum field. By entering "0" to the maximum value, the maximum will be calculated automatically.

Some statistic values are based on an additive data series. (for example a series of total mailed messages is an ever increasing data series). If you wish to display such data as a non-incremental series, set "Ascending Value Filter" to "enabled".

You can choose a data retrieval mode. For line series, currently only "list of data points" is available.

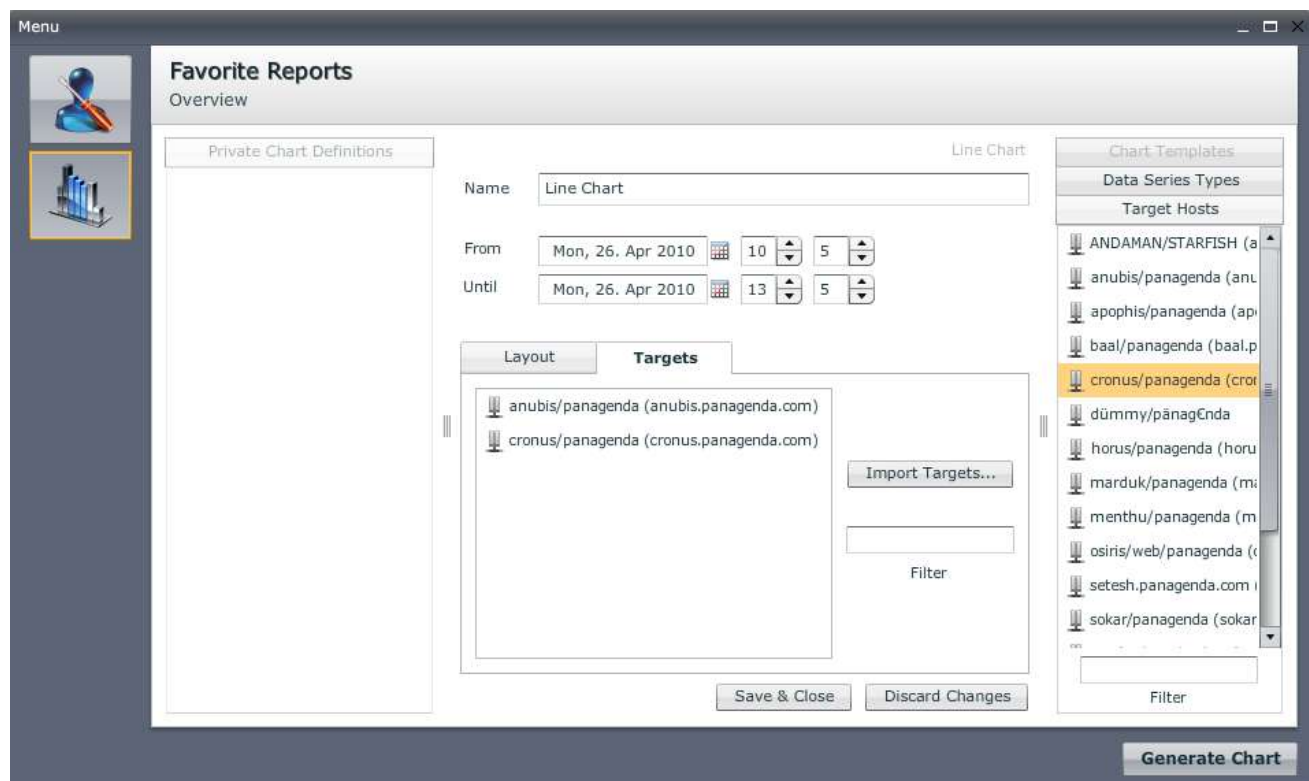
After your series configuration is done, select "Finish" - the data series wizard will be closed and the data series will be added to your chart definition.

expect the
unexpected

You can add additional series by dragging another line series or area series into the layout area and repeat the steps of the data series wizard.

You can remove a previously defined series by right clicking it with your mouse and select "remove data series" from the context menu.

Next you have to add some hosts to your chart. Switch to the targets and drag some hosts from the list into the host area. You can also import a predefined list of host from an already created chart.



Only data from selected hosts will show up in the finished chart.

After your chart definition is complete, you can select "Save and close" to save your chart definition as a private chart definition and close the chart creation wizard or you can choose to discard your changes. By selecting "create chart" you can directly render your chart.

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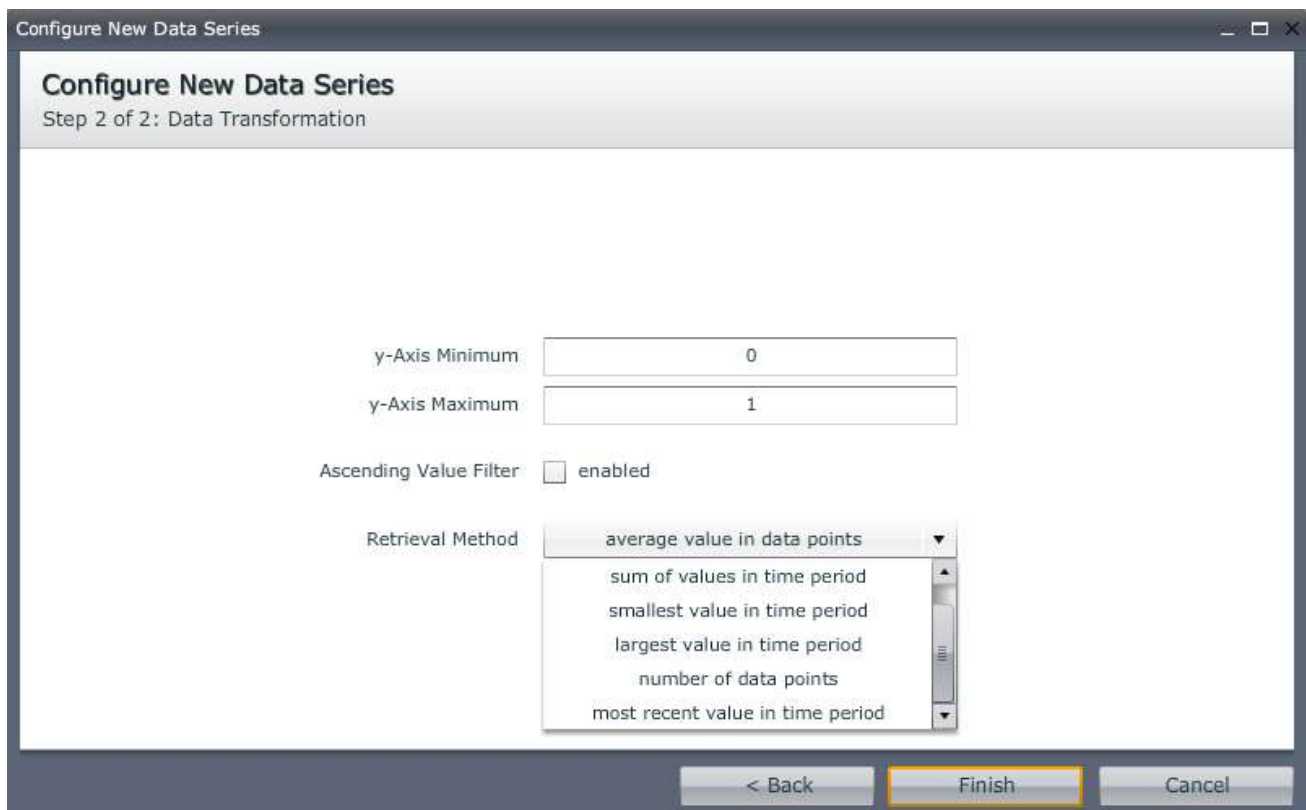
By saving your chart definition, it will be added to the "private chart definitions" list. From there you can drag a chart on the "Edit chart" area to edit a chart definition or you can drag a chart definition over "Generate Chart" to render and view the chart. Editing an existing chart is similar to creating a new chart.

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Column chart

A column chart can be defined in the same way as a line chart is defined. Just select the chart type "column chart" and add column series to the chart.

Column charts use several aggregation methods to calculate the height of its columns



You can change the aggregation method to:

- Average value in data points in time period
Calculates the arithmetic mean of all data point values within the selected time period

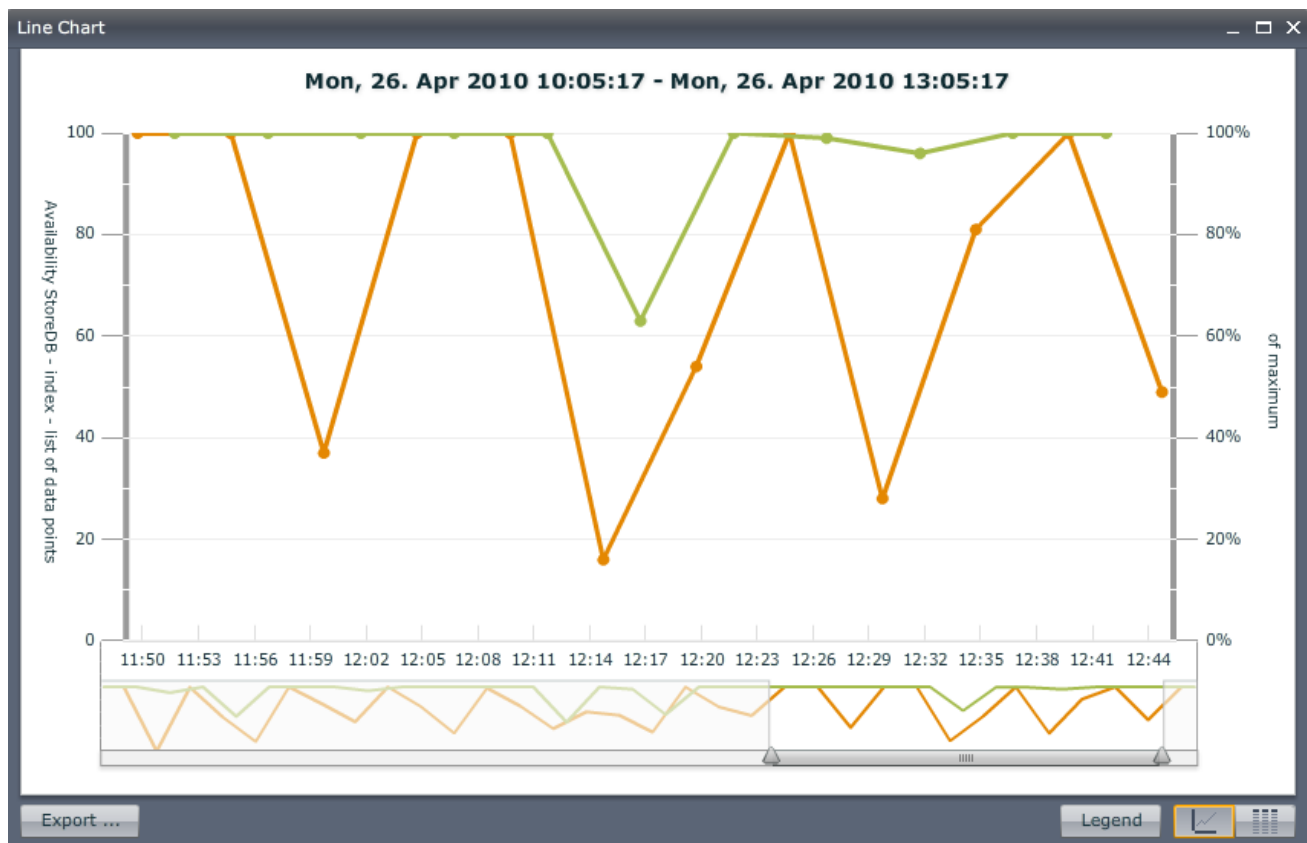
expect the
unexpected

- Sum of values in data points in time period
Summarizes all data point values within the selected time period
- Smallest value in data points in time period
Uses only the smallest value within the selected time period for display
- Largest value in data points in time period
Uses only the largest value within the selected time period for display
- Number of data points in time period
Counts and returns the number of found data points with the selected time period
- Most recent value in time period
Uses the most recent data point value within the selected time period

expect the
unexpected

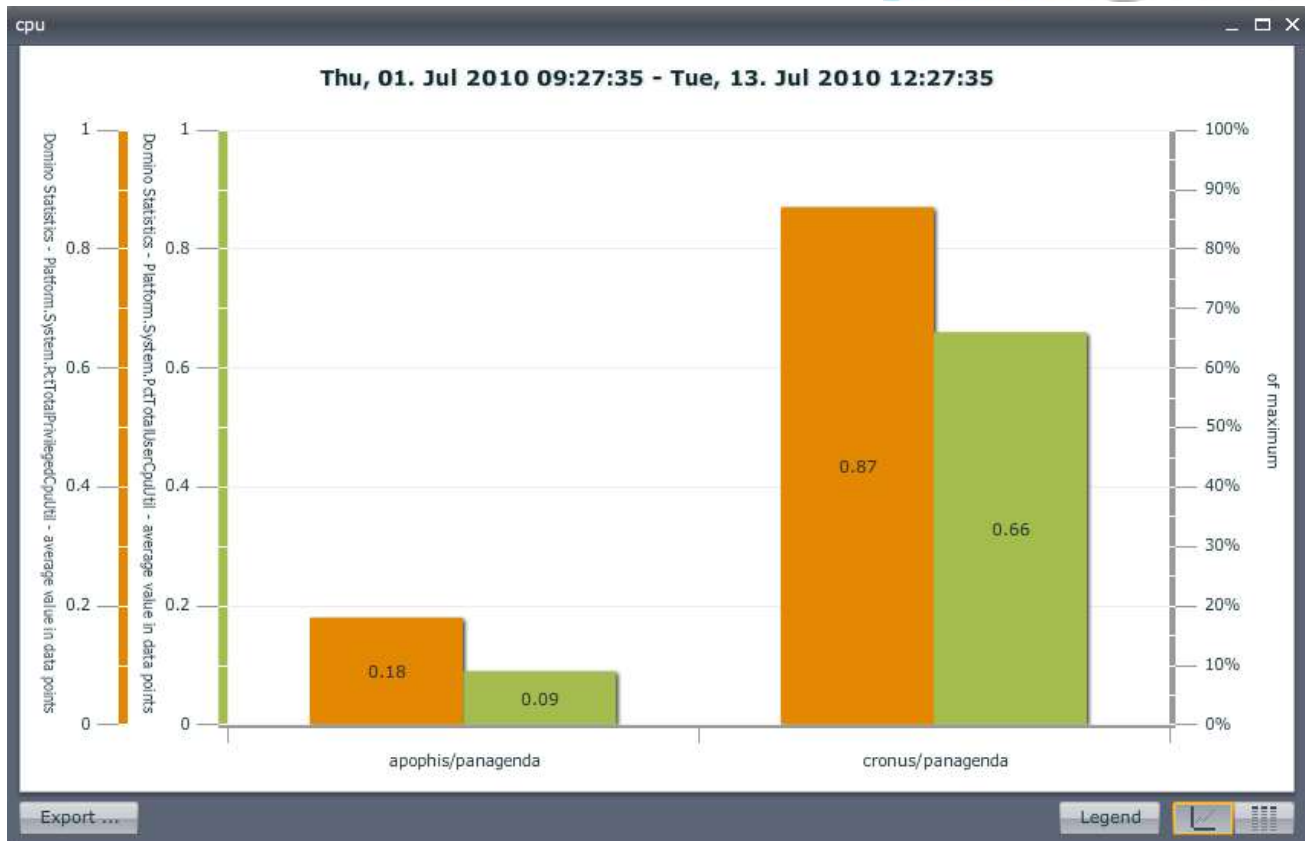
Chart

panagenda GreenLight's charting engine offers a list of features to analyze you monitored network information.



Each chart definition opens a separate window when generated. After data extraction from the panagenda GreenLight appliance is completed, the historical data will be displayed in the previously defined way, giving you the means to analyze your server's historical data.

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A chart window consists of the following parts:

- Windows Name

The window name is the name you provided with your chart definition. The name appears in the task bar area of the panagenda GreenLight rich client user interface under the chart icon and within the top border of the chart window for easy identification of your generated chart.

- Caption

The time frame of the charted data is used displayed above each chart.

expect the
unexpected

- Y-Axis (left)

The left Y-Axis gives information about the data used within the chart. Because a panagenda GreenLight chart can display data with multiple units and scopes within one single chart, multiple Y-Axis legends can be displayed here.

Selecting this axis with the right mouse button gives you the option to change the scale of the axis and to enable or disable the display of the axis legends on the bottom of the window.

- Y-Axis (right)

The right Y-Axis displays a fixed percentage scale ranging from 0 to 100 percent.

- X-Axis

The X-Axis of each panagenda GreenLight chart is calculated dynamically, depending on the selected data scope and on the amount of displayed data points. The X-Axis always shows time based information, ranging from date information (days) to time information (hour, minute, second)

- Time-Slider (Chart Navigation)

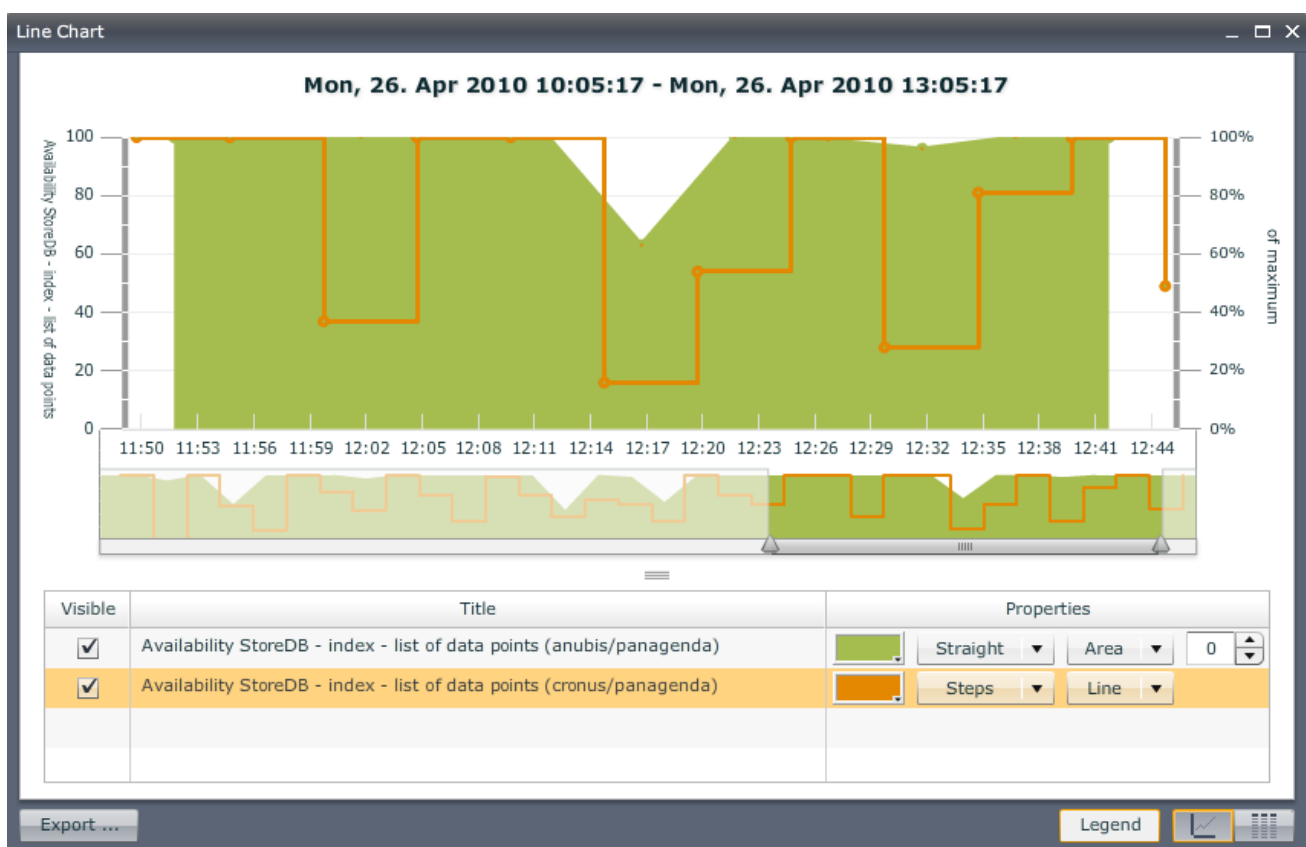
Located directly below the main chart area, the chart navigation area helps you to locate and display a small part of the chart from long term chart data.

You can drag the navigation slider to any position within the chart data by holding your left mouse button while dragging the slider to the left or the right. The data in the main chart area will update automatically, displaying the chosen data section. By dragging the left and right marker of the slider, you can change the time span of the selected area. Using this feature you can identify problems on the large scale and then zoom into the data and track down any server information to the exact minute.

- Legend

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By selecting the legend button, an additional screen area will be opened, that displays a tabular list of information about the displayed data. Each displayed data series has its own row within the table. By checking or unchecking a row by using the checkboxes of the first column you can show or hide a selected data series on the displayed chart. The second columns hold information about the displayed data itself. Within the third column you can change some display options for the selected data series. You can change the display color of each data series and the drawing behavior in different ways.



- Chart / Table view
This button toggles between a graphical chart display and a tabular display of the different time series.
- Export

expect the unexpected

By selecting this option you can export the current chart into an Adobe PDF document for later user or printout.

- Chart area

The main chart area displays the data within an selected time frame. By moving your mouse over data points within the chart you can request detailed information about a special data point.

expect the
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Report Manager

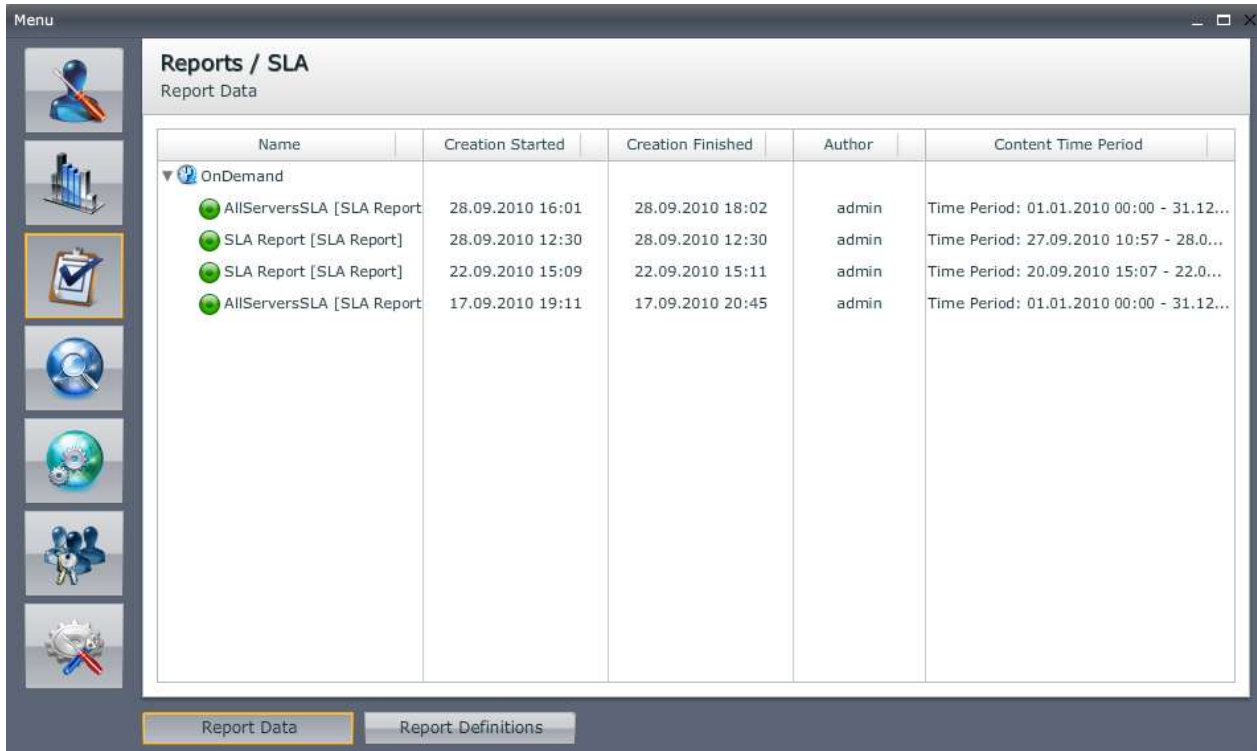
panagenda GreenLight offers a comprehensive report manager to create various reports for every day requirements, e. g. SLA reports, hardware reports, etc.

Currently (as of version 2.4.0) panagenda GreenLight comes with SLA reporting only. Reporting is currently in heavy development and more report options should become available in future releases of panagenda GreenLight

expect the
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Report Data

You can review created reports at any time you want.



The screenshot shows a software window titled "Reports / SLA" with a subtitle "Report Data". On the left is a vertical menu with icons for various functions. The main area contains a table with the following data:

| Name | Creation Started | Creation Finished | Author | Content Time Period |
|------------------------------|------------------|-------------------|--------|--|
| ▼ OnDemand | | | | |
| ● AllServersSLA [SLA Report] | 28.09.2010 16:01 | 28.09.2010 18:02 | admin | Time Period: 01.01.2010 00:00 - 31.12... |
| ● SLA Report [SLA Report] | 28.09.2010 12:30 | 28.09.2010 12:30 | admin | Time Period: 27.09.2010 10:57 - 28.0... |
| ● SLA Report [SLA Report] | 22.09.2010 15:09 | 22.09.2010 15:11 | admin | Time Period: 20.09.2010 15:07 - 22.0... |
| ● AllServersSLA [SLA Report] | 17.09.2010 19:11 | 17.09.2010 20:45 | admin | Time Period: 01.01.2010 00:00 - 31.12... |

At the bottom of the window, there are two buttons: "Report Data" (highlighted) and "Report Definitions".

Just select a available report from the list by double clicking it. A report dialog will open, showing you the requested report and all its data in a tabular view.

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Report Data: AllServersSLA

Step 1 of 2: Data Table

| Node | From | Thru | Service Availability | Service Availability [#processed] | Service (BH only) |
|-------------------|------------------|------------------|----------------------|--------------------------------------|----------------------|
| ANDAMAN/STARFISH | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.94 | 90,338 | |
| anubis/panagenda | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.91 | 81,721 | |
| apophis/panagenda | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.73 | 81,718 | |
| ColabCluster | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.77 | 93,371 | |
| cronus/panagenda | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.80 | 93,533 | |
| marduk/panagenda | 01.01.2010 00:00 | 31.12.2010 23:59 | 98.94 | 90,334 | |
| tanith/panagenda | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.79 | 90,332 | |
| tiamat/panagenda | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.79 | 90,334 | |
| Vienna01/MSC | 01.01.2010 00:00 | 31.12.2010 23:59 | 99.92 | 90,312 | |
| | | | | | |
| | | | | | |
| | | | | | |

Export CSV ... < Back Next > Cancel

Use the scrollbars on the left and the bottom of the report to navigate through larger report tables.

Select "Export to CSV" to create a file with comma separated values (separator character is comma ",", decimal separator is point ".")

By selecting "next" you can show each report value within a bar chart to visually compare multiple server nodes.

expect the
unexpected

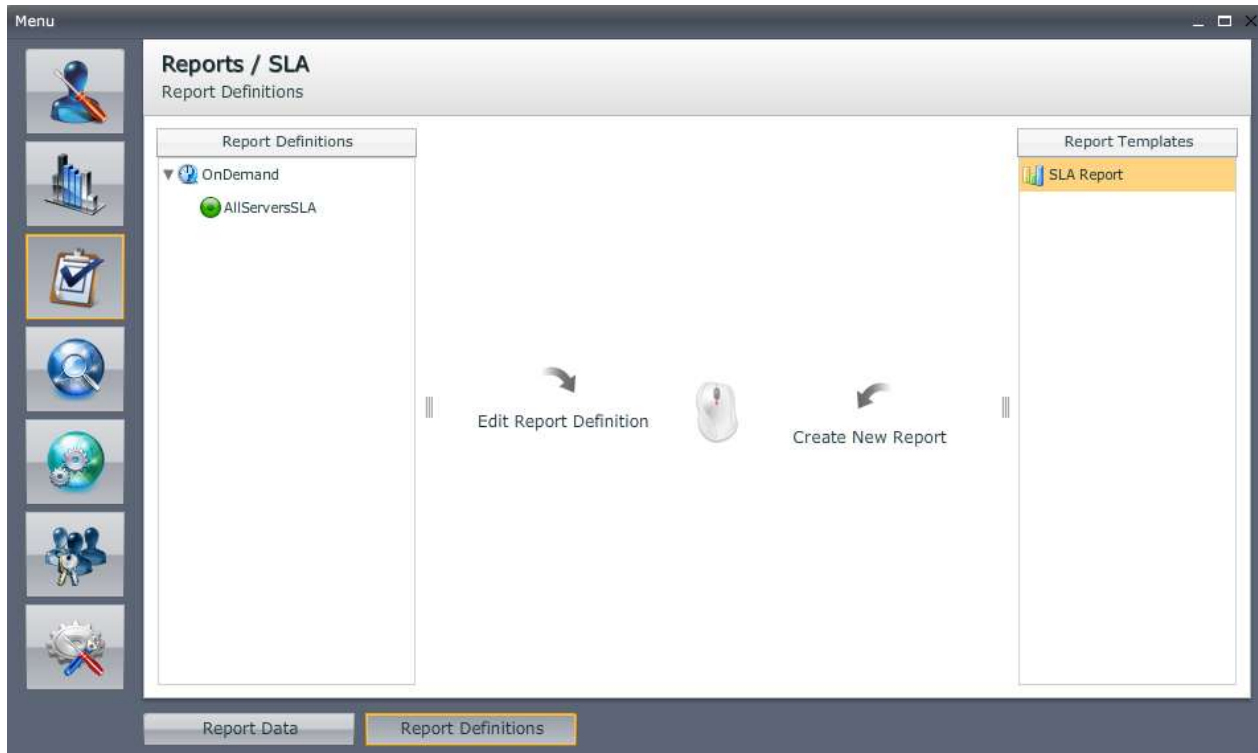


You can manipulate the display by selecting a data series, adding or removing server or cluster nodes and changing the y-Axis title and span.

By selecting "export to PDF" you can create a PDF version of the currently show chart.

expect the unexpected

Report Definition



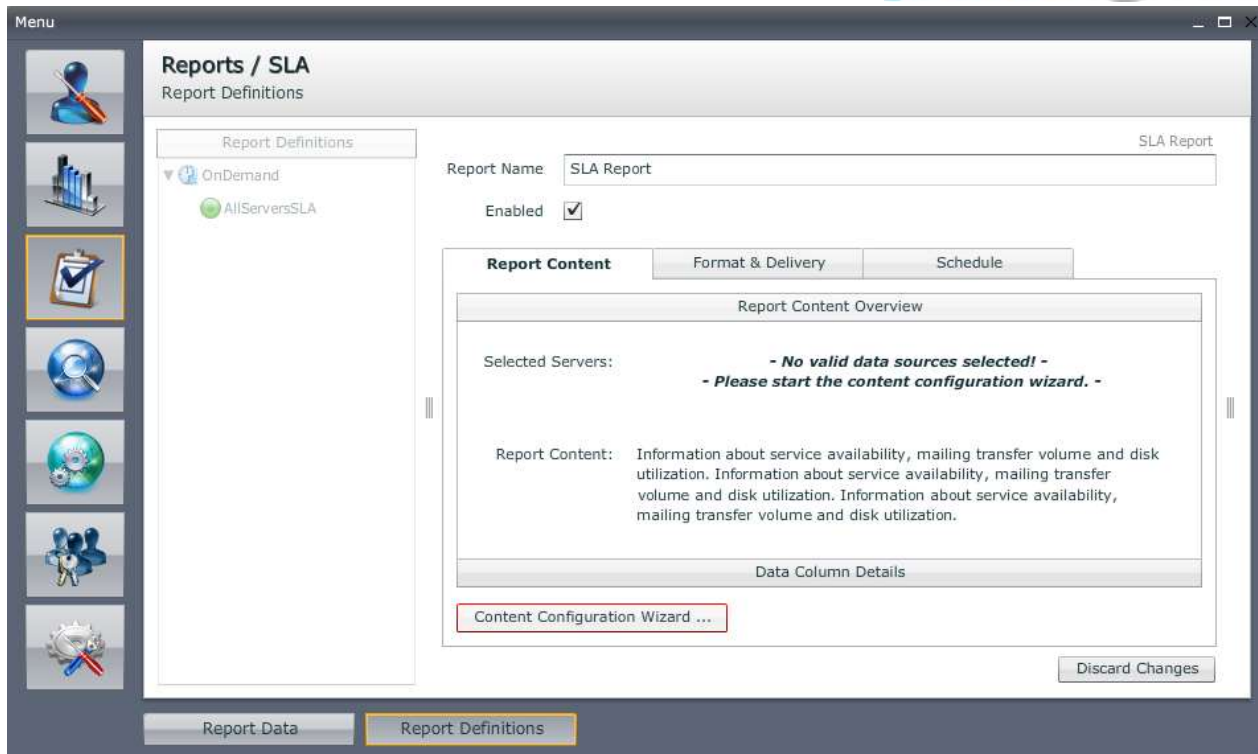
You can define or edit your own report definitions by selecting „report definitions“.

Creating a new report definition

You can create a new report definition by dragging an available report definition template over the “create new report” area.

A creation wizard will guide you through the definition process.

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unexpected



Give your report a recognizable name. You can enable or disable you report, thus enabling or disabling automatic report data collection, creation and delivery.

By using a report template for creation of a new report, some configuration information like report content may already be predefined. You can modify any of the predefined data to meet your requirements.

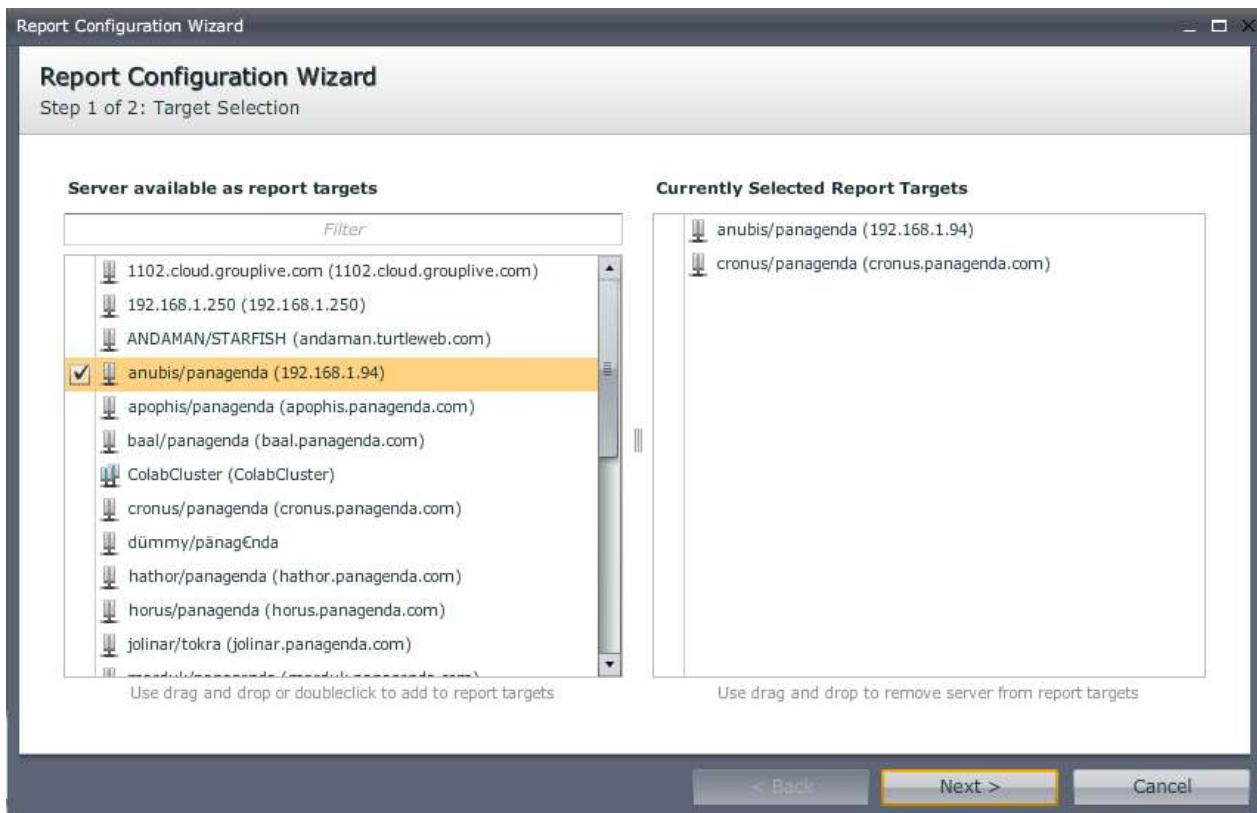
Report Content

You have to define the content for your reports. This includes server and cluster nodes and report content like service availability and mail transfer volumes.

If any of this data is missing, you cannot create a working report. The report content overview gives you hints about what information is still required in your report definition.

expect the
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To add or change the report content, select "Content Configuration Wizard".



With step one you have to select server and cluster nodes that should appear in your new report. Use drag and drop or double click to add servers to the selected list.

Select "next" if you are satisfied with your selection.

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Report Configuration Wizard

Step 2 of 2: Sensor Selection

Please select the sensors that should be used as report data sources. If not yet user configured, the system has computed a recommended configuration.

Overwrite current selection with this sensor where it is a valid selection option

Domino Cluster Availability ▼ TimeFrame Tests ▼ Domino Disk Statistics ▼

Filter ▼ Update ▼ Update ▼ Update ▼

| Server | Availability | Mail | Disk |
|--------------------------------|-------------------------------|---------------------|--------------------------|
| anubis/panagenda (192.168.1.9) | Domino Cluster Availability ▼ | Domino Statistics ▼ | Domino Disk Statistics ▼ |
| cronus/panagenda (cronus.pana) | Domino Cluster Availability ▼ | TimeFrame Tests ▼ | Domino Disk Statistics ▼ |
| | | | |
| | | | |
| | | | |
| | | | |

< Back Finish Cancel

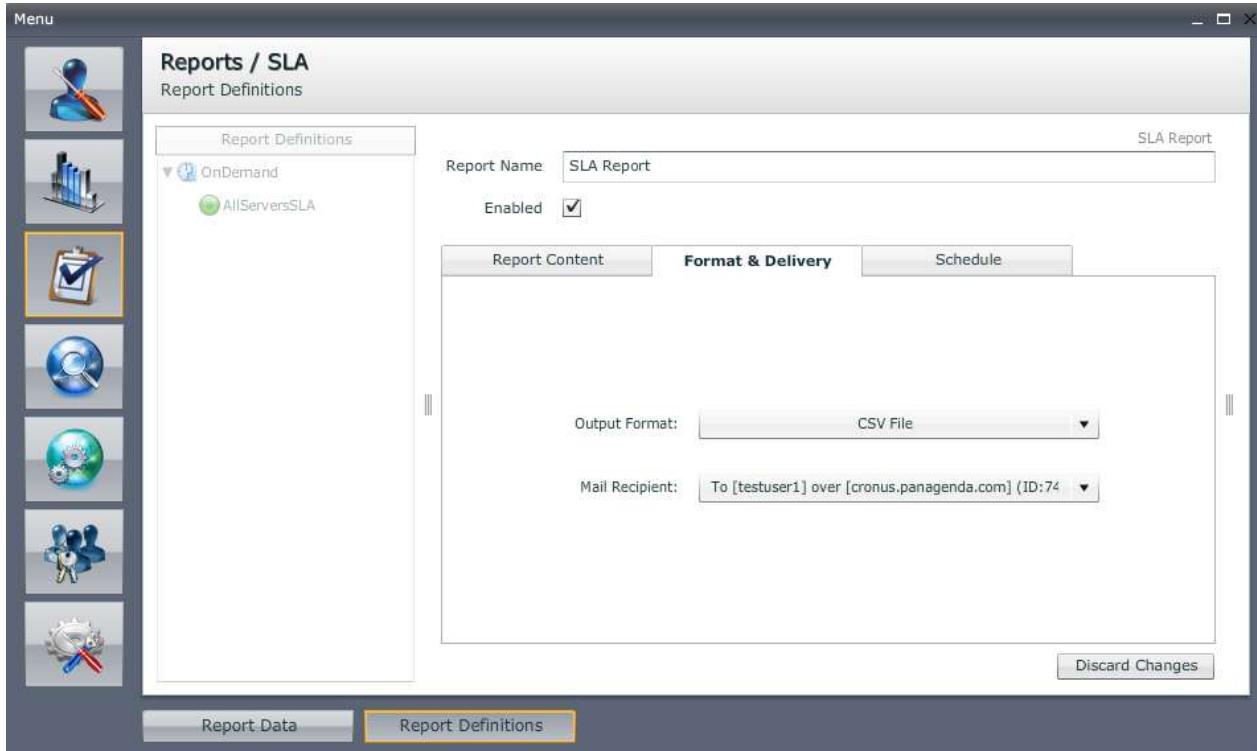
On step two you can select the source sensors for your report. You can apply sources to all your selected servers or can configure each server individually.



Due to the fact, that not necessarily all nodes have the same set of sensors, sometimes panagenda GreenLight has to assume the "next best" sensor to gather the required report data. You can always change the data source to your own requirements if you are not satisfied with the systems decision.

By finishing the wizard you return to the previous dialog.

expect the unexpected



Menu

Reports / SLA
Report Definitions

Report Definitions

SLA Report

Report Name: SLA Report

Enabled ☒

Report Content | **Format & Delivery** | Schedule

Output Format: CSV File

Mail Recipient: To [testuser1] over [cronus.panagenda.com] (ID:74)

Discard Changes

Report Data | **Report Definitions**

Now you are prompted to select your desired report output format and report recipient.

Choose from the list of available options.

Next you have to define a schedule for your report generation and delivery.

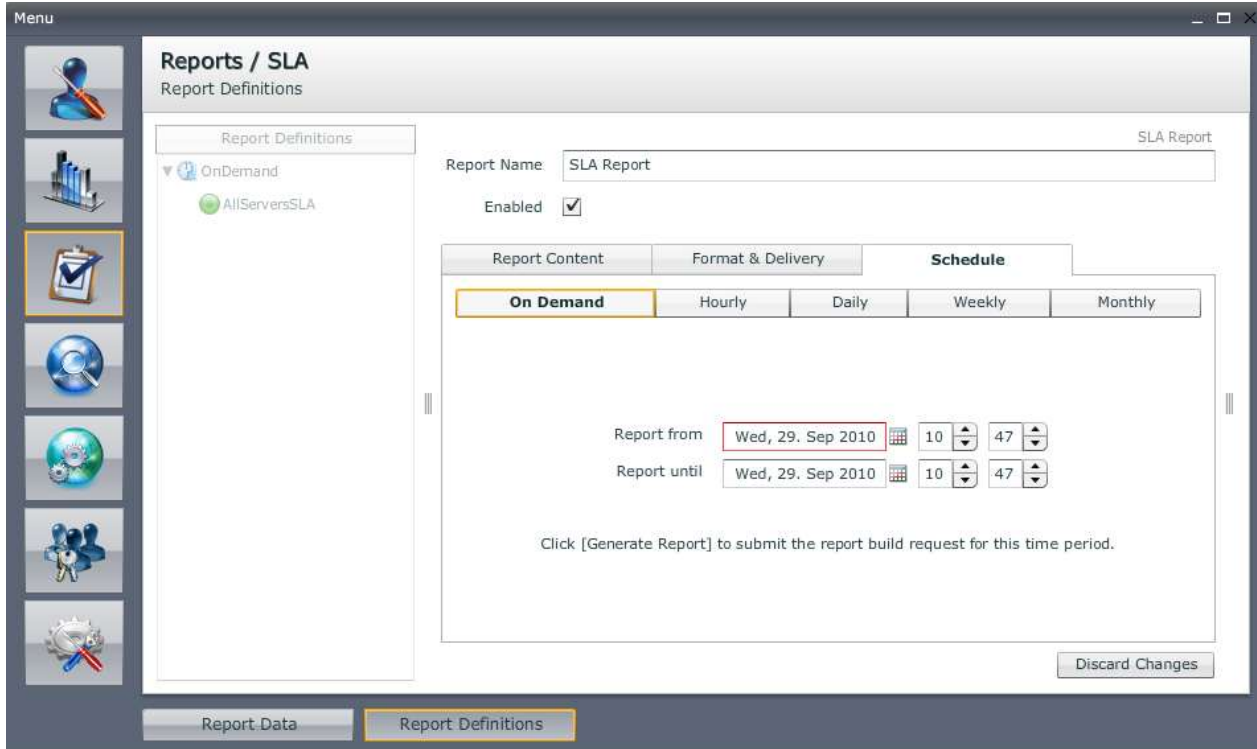
You can choose from different creation methods.

- On Demand
- Hourly
- Daily
- Weekly
- Monthly

On Demand

expect the
unexpected

On demand report generation requires a start and an end date for the extracted data.

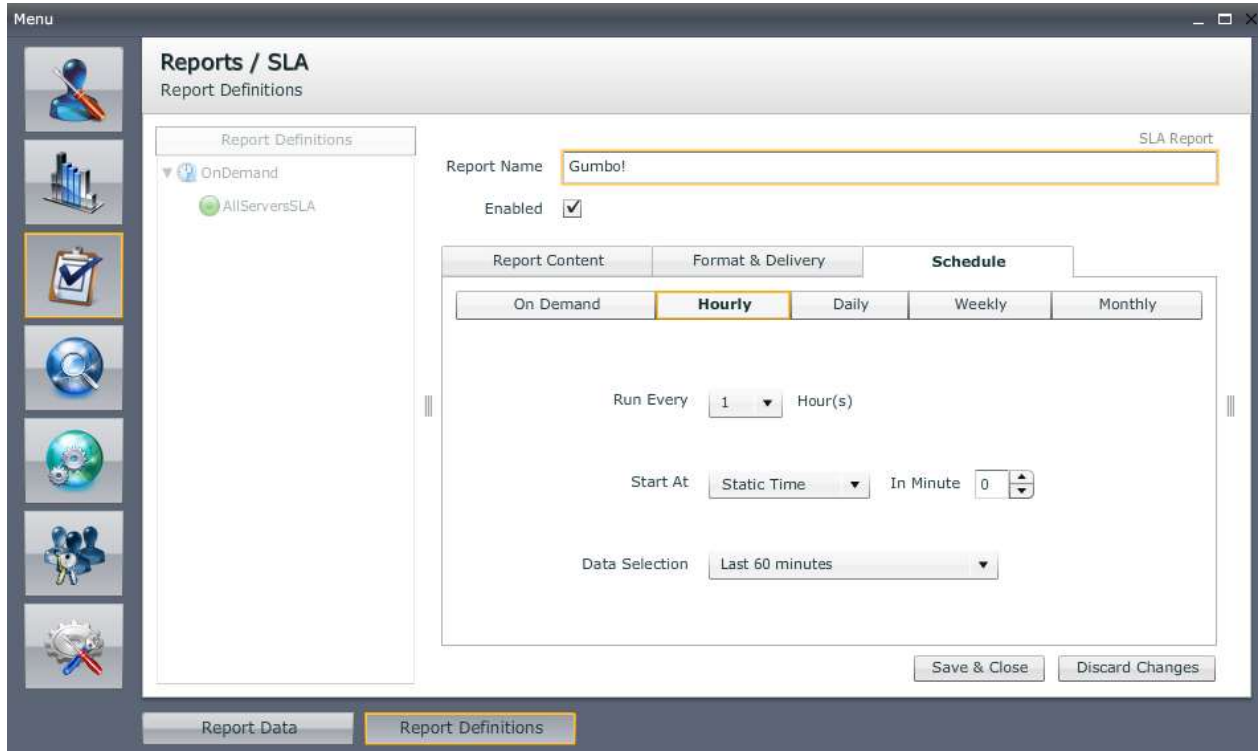


If a valid time frame for report generation is set, the “Generate Report” button magically appears in the lower left corner. By selecting it, the report is generated and added to the list of available report.

expect the
unexpected

Hourly

You can set up a time schedule to create hourly reports.



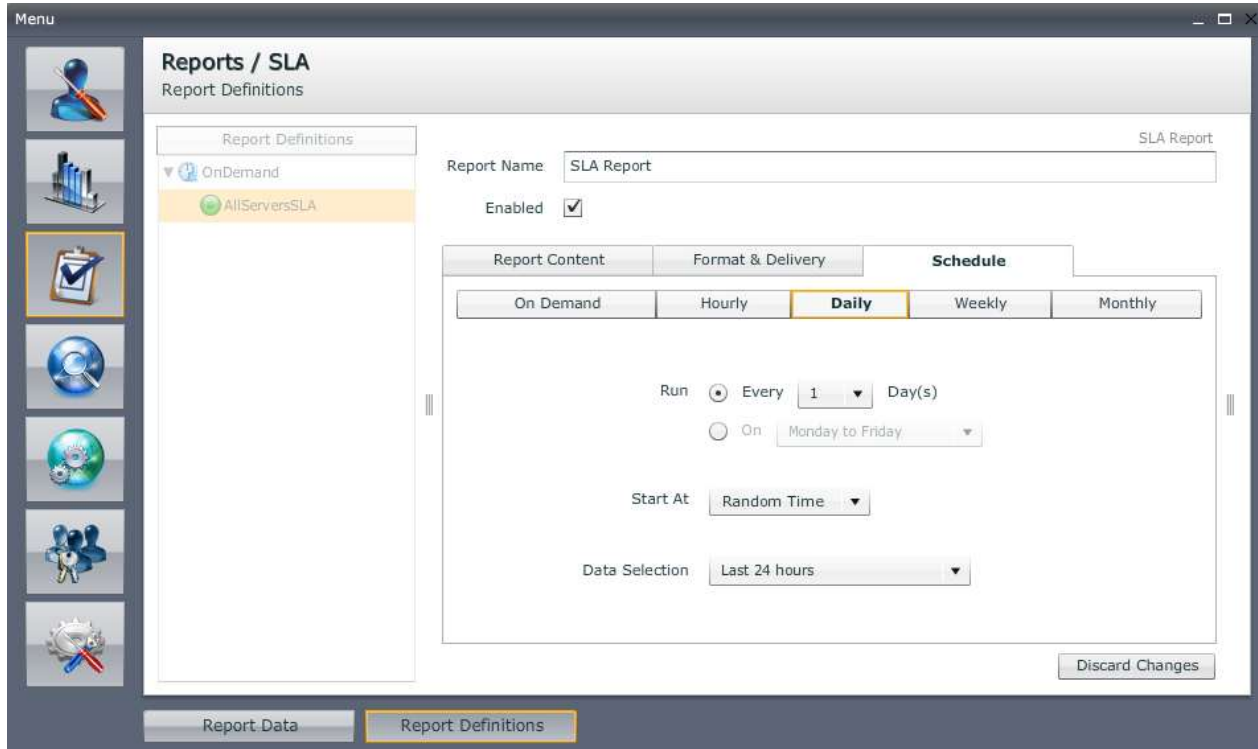
Choose from a time interval in hours (run every X hours) and select a start time for creation (random or fixed minute)

In Addition you can chose if your report consist of data from the last X minutes (depending on your chosen run interval) or from the last full set of selected hours.

expect the
unexpected

Daily

You can set up a daily schedule for report creation



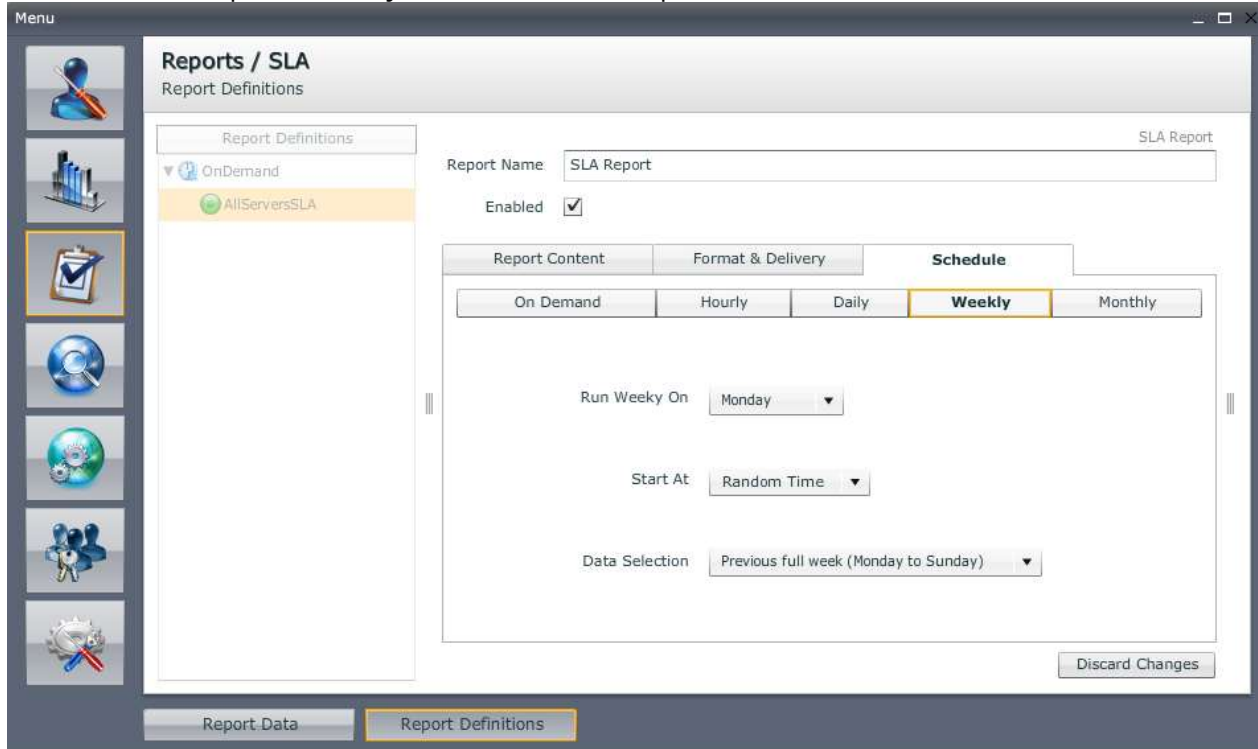
You can choose from a daily interval or from some special daily schedules and select a start time for creation (random or fixed minute)

In Addition you can chose if your report consist of data from the last X hours (depending on your chosen run interval) or from the last full set of selected days.

expect the
unexpected

Weekly

You can set up a weekly schedule for report creation



Menu

Reports / SLA
Report Definitions

Report Definitions

OnDemand

AllServersSLA

Report Name: SLA Report

Enabled: ☒

Report Content | Format & Delivery | **Schedule**

On Demand | Hourly | Daily | **Weekly** | Monthly

Run Weekly On: Monday

Start At: Random Time

Data Selection: Previous full week (Monday to Sunday)

Discard Changes

Report Data | Report Definitions

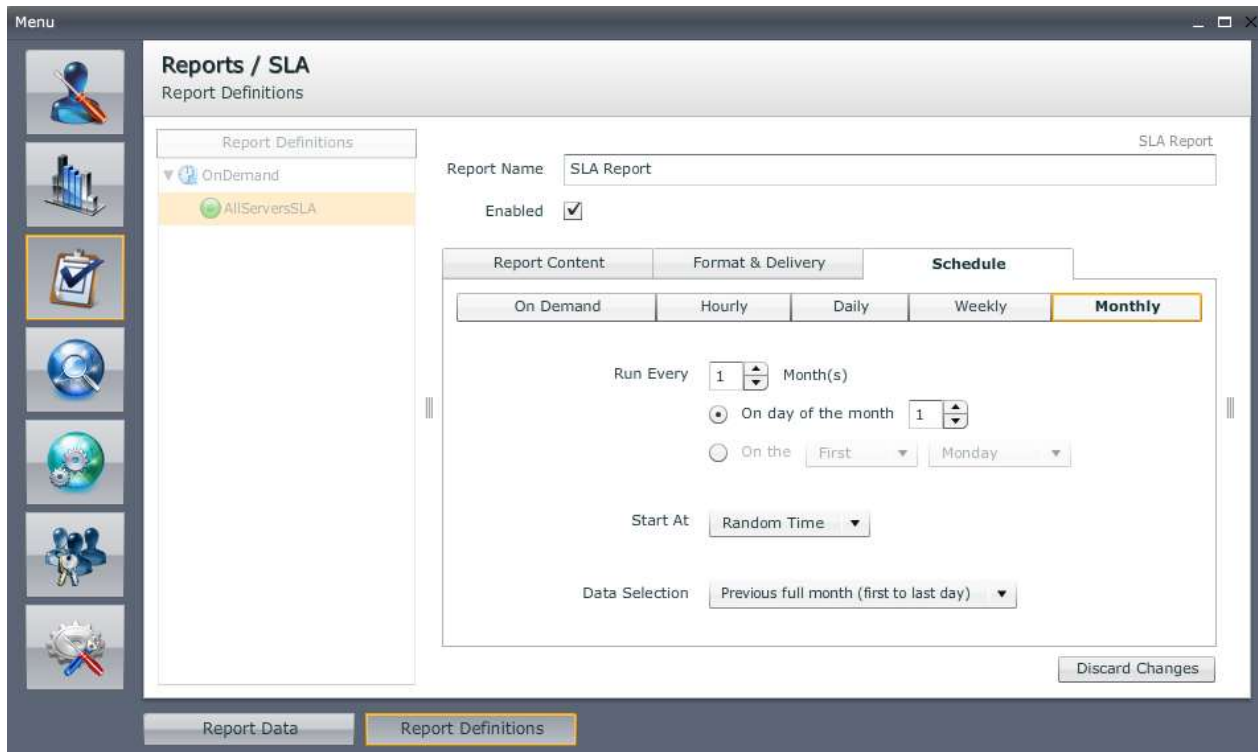
You can choose from a weekly interval by selecting the day of the week and select a start time for creation (random or fixed minute)

In Addition you can chose if your report consist of data from the last full week (Monday to Sunday or Sunday to Saturday)

expect the
unexpected

Monthly

You can set up a monthly schedule for report creation



The screenshot shows the 'Reports / SLA' window with 'Report Definitions' selected. The 'SLA Report' is configured with the following settings:

- Report Name:** SLA Report
- Enabled:** ☒
- Schedule:** Monthly (selected from On Demand, Hourly, Daily, Weekly, Monthly)
- Run Every:** 1 Month(s)
- On day of the month:** 1
- On the:** First, Monday
- Start At:** Random Time
- Data Selection:** Previous full month (first to last day)
- Buttons:** Discard Changes, Report Data, Report Definitions

You can choose from a monthly interval and select a day within each month or a first occurrence of a weekday within each month.

expect the
unexpected

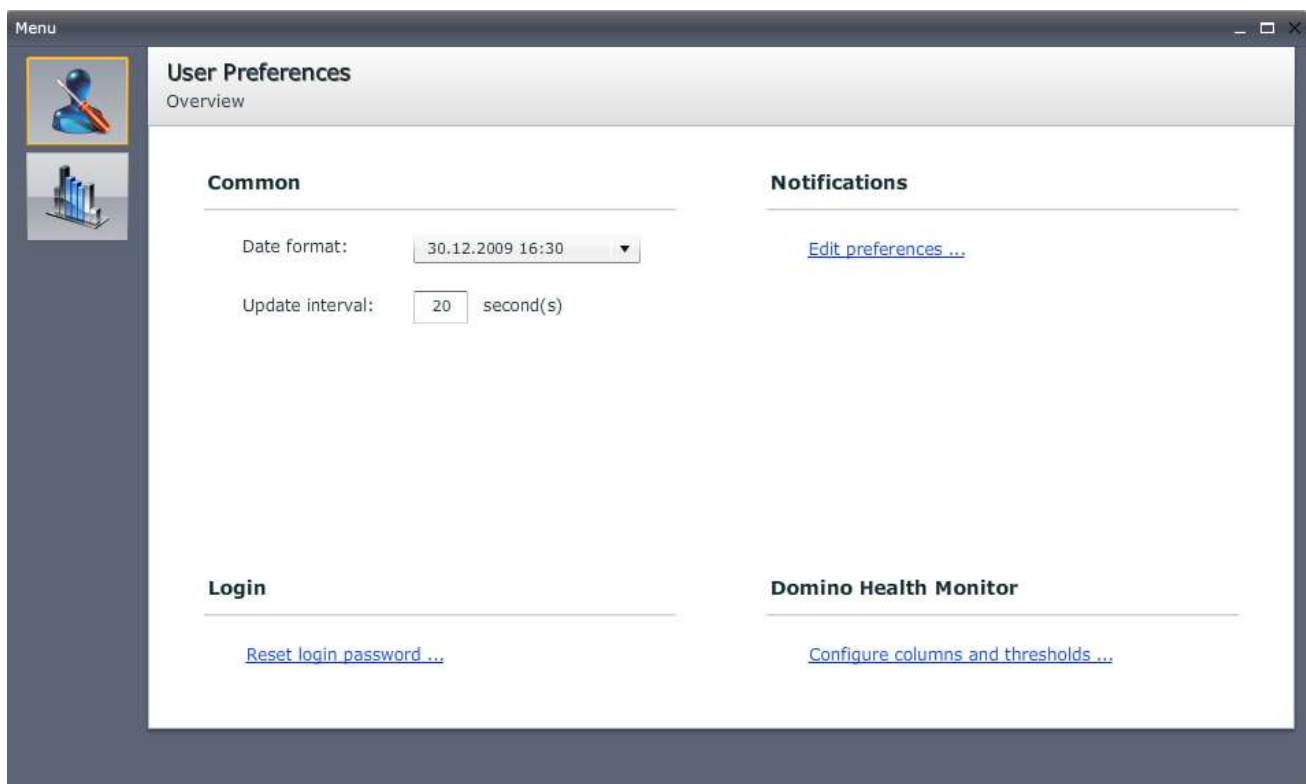
Editing a report definition

Editing already configured reports is similar to creating new ones. Just drag a report definition from the list of available reports onto the “edit report” area to open the report definition editor.

expect the
unexpected

User Preferences

Panagenda GreenLight supports personal user setting. Currently, the used date and time format can be set on a per user basis, user columns, notifications and display thresholds can be set and a users password can be reset.



Menu

User Preferences

Overview

Common

Date format: 30.12.2009 16:30 ▼

Update interval: 20 second(s)

Notifications

[Edit preferences ...](#)

Login

[Reset login password ...](#)

Domino Health Monitor

[Configure columns and thresholds ...](#)

expect the
unexpected

NOTES



expect the
unexpected